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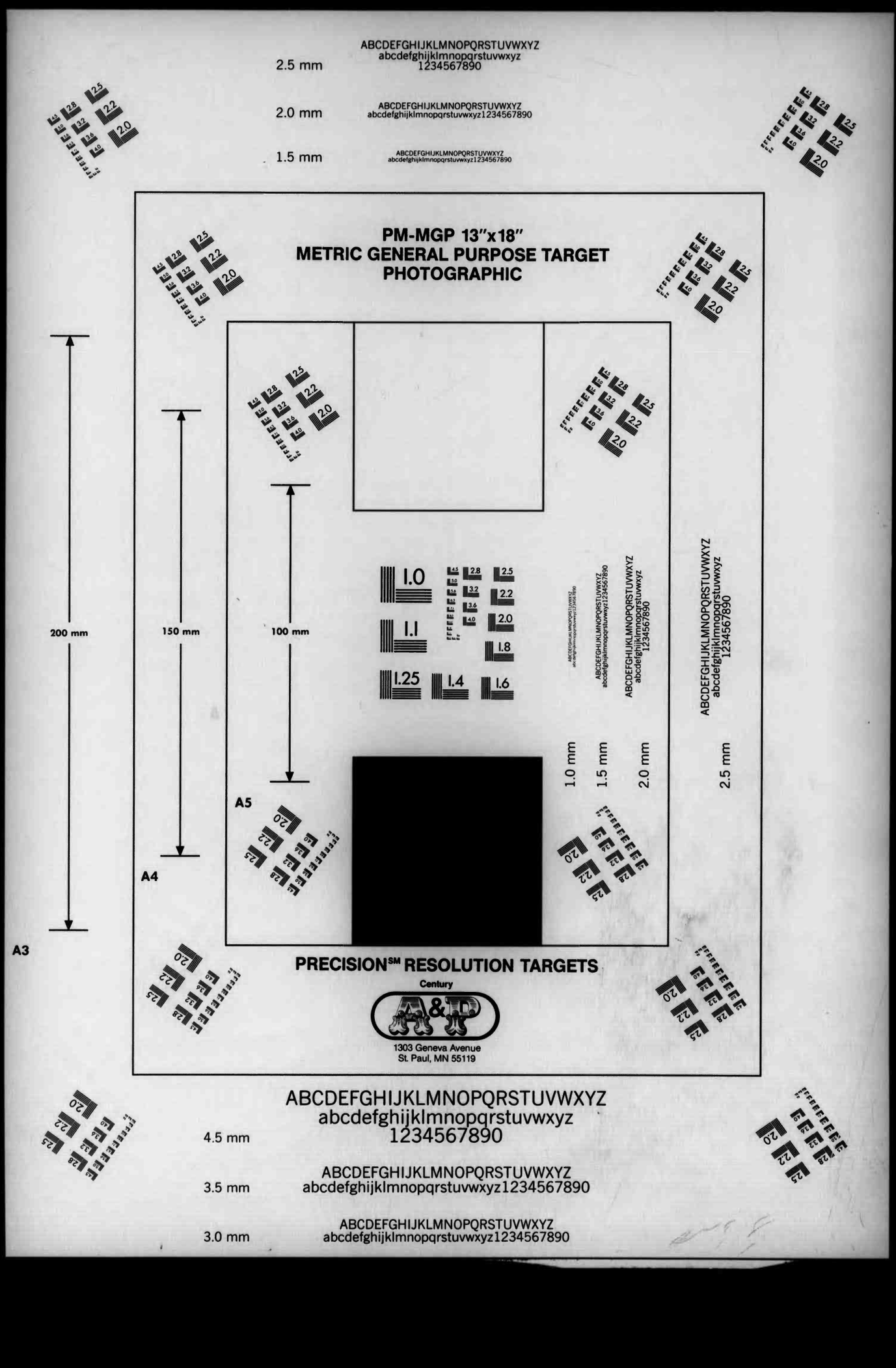
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VOLUME

1

BLS-STATE
Employment Statistics
Manual

Volume I GENERAL TOPICS

United States Department of Labor
Bureau of Labor Statistics

BLS-State
Employment Statistics Manual

in three volumes

Volume I—General Topics

UNITED STATES DEPARTMENT OF LABOR
Maurice J. Tobin, *Secretary*

BUREAU OF LABOR STATISTICS
Ewan Clague, *Commissioner*

[redacted]

Letter of Transmittal

UNITED STATES DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, D. C., December 1, 1948.

THE SECRETARY OF LABOR

I have the honor to transmit the *BLS-State Employment Statistics Manual.* This *Manual* is the basic guide on techniques and procedures for the State Employment Statistics Program, under which State agencies, in cooperation with the Bureau of Labor Statistics, prepare State and area statistics on employment, hours, and earnings.

The *Manual* was prepared under the general guidance of Samuel Weiss, Chief, and Walt R. Simmons of the Branch of Employment Statistics. Morris J. Slonim and Irving Miller coordinated the work of the many persons who were responsible for its preparation.

The *Manual* is the outgrowth of many years of experience and is the product of a large number of present and former BLS staff members who have developed the procedures described. Special mention should be made of Robert B. Steffes of the Branch of Employment Statistics and of Loring Wood, now of the Bureau of the Budget.

The Bureau also acknowledges the valuable assistance of staff members of other agencies, notably of the Bureau of Employment Security and of cooperating State agencies.

EWAN CLAGUE, *Commissioner.*

HON. MAURICE J. TOBIN,
Secretary of Labor.

PREFATORY NOTE

State Employment Security agencies cooperating with BLS should consider this *BLS-State Employment Statistics Manual* as the principal set of instructions covering the preparation of current estimates of employment, hours, and earnings. Part III, Vol. I of the *Guide for State Employment Security Administration* continues to be the governing instructions on the handling of employer contribution returns. It should be noted that the ES *Guide* was written at a time when few ES State agencies were preparing current estimates of employment. Parts of this *BLS–State Manual* were originally prepared for use by BLS regional offices and by State contract organizations other than Employment Security agencies. Since State estimates are now being prepared in the majority of cases by State Employment Security agencies, both BES and BLS have been modifying their requirements to encourage maximum coordination of employment statistics work. Experience will indicate those directions in which further amendments are advisable. The possibility of eventually issuing a joint BLS–BES employment statistics manual to replace this *Manual* and those sections of Part III, Vol. I of the *Guide* dealing with employer contribution reports is being considered. Comments and advice from the States are invited so that the *Guide* and the *Manual* can be brought into complete agreement on both policy and procedure, and so that the substance of that agreement is best suited to the needs of States as well as to the needs of the Federal agencies.

The reporting requirements contained in this *Manual* have been approved by the Bureau of the Budget in accordance with Regulation A pursuant to the Federal Reports Act of 1942.

WASHINGTON, D. C.

March 1, 1948

Bureau of Employment Security
Bureau of Labor Statistics

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1.1–1 Two Types of Employment Statistics

There are two types of employment statistics. One type, frequently described as population data, is obtained through sample or census enumeration of individual persons or households, and provides estimates of numbers of persons in the labor force, not in the labor force, employed, or unemployed. This type of measure includes the self-employed, domestic servants and all other workers, whether or not found on the pay rolls of an industrial or commercial establishment. These population data are normally not available by detailed industry or occupational breaks except in the decennial Census of Population.

The other general type of employment statistics usually is described as establishment data. It refers to workers on the pay rolls of industrial and commercial establishments, and is assembled from reports furnished by employers. Establishment reports permit more detailed and accurate classification of employment by industry, and are better adapted to analysis of pay rolls, earnings, hours, turnover and industrial trends than are population data.

The availability of both types of employment statistics is discussed in section 4, vol. I of this *Manual.*

1.1–2 Scope of Manual

Although the term employment statistics frequently is extended to cover the subject of pay rolls, hours, earnings, and related subjects, the major part of this *Manual* as presently constituted is confined to matters relating to the estimation of numbers of persons on establishment pay rolls.

1.2 ROLE OF THE BUREAU OF LABOR STATISTICS

1.2–1 Other Agencies

A number of governmental agencies, both Federal and State, collect various segments of employment data through establishment reports. The programs of the agencies which are most active in this field are outlined in section 4, vol. I.

1.2–2 BLS Responsibility

The Bureau of Labor Statistics is directed by Act of Congress to collect and compile employment statistics on a monthly basis:

> The Bureau of Labor Statistics shall also collect, collate, report, and publish at least once each month full and complete statistics of the volume of and changes in employment, as indicated by the number of persons employed, the total wages paid, and the total hours of employment, in the service of the Federal Government, the States and political subdivisions thereof, and in the following industries and their principal branches: (1) Manufacturing; (2) mining, quarrying and crude petroleum production; (3) building construction; (4) agriculture and lumbering; (5) transportation, communication, and other public utilities; (6) the retail and wholesome trades; and such other industries as the Secretary of Labor may deem it in the public interest to include. Such statistics shall be reported for all such industries and their principal branches throughout the United States and also by States and/or Federal reserve districts and by such smaller geographical subdivisions as the said Secretary may from time to time prescribe. The said Secretary is authorized to arrange with any Federal, State, or municipal bureau or other governmental agency for the collection of such

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SECTION 1

Introduction

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1.2–2 BLS Responsibility—Continued

statistics in such manner as he may deem satisfactory, and may assign special agents of the Department of Labor to any such bureau or agency to assist in such collection.[1]

In carrying out this responsibility, the BLS makes use of data collected by other Federal agencies and of data obtained through a system of voluntary reporting by a sample of approximately 115,000 establishments employing some 11,000,000 workers. On the basis of this information, the BLS prepares and publishes monthly estimates of employment for more than 190 industries and industry groups.[2]

1.3 THE STATE PROGRAM

1.3–1 Cooperation With State Agencies

The greater part of BLS energies in the employment, hours, and earnings field has been devoted to the compilation of national summaries. But for some years the Bureau has maintained contract arrangements with a number of State agencies whereby separate employment indexes for selected industries in the State have been prepared and issued by the State agency using information reported on a common State–BLS schedule. Beginning in 1945, the Bureau undertook to extend these contract arrangements to a greater number of States, and to expand in other ways the scope of State employment statistics.

1.3–2 Objectives of State Program

The principal objectives of the State Program are:

(a) To develop and maintain an accurate and authoritative series of monthly employment estimates, by industry, for all nonagricultural industries for each State.

(b) To develop and maintain accurate and authoritative monthly series of average hourly and weekly earnings and of average weekly hours worked, by industry, for manufacturing industries (and for a few nonmanufacturing industries), for each State.

(c) To develop and maintain a system of procedures that can be translated effectively to an area program, whereby similar series, as needed, may be developed for important local areas within a State.

(d) To plan and carry out these developments in such a fashion as will strengthen and improve the national totals.

(e) To serve public needs for strictly current data by releasing preliminary estimates within 1 month of the date of reference, while maintaining the accuracy of final or historical series.

(f) To eliminate duplication and confusion and to promote uniformity and standardization through close coordination of Federal and State agencies and programs.

(g) To carry out the program at a minimum cost.

[1] Quotation from Chapter 873, Volume 46, Part I, Public Laws (Approved July 7, 1930).

[2] The approximate number of establishments and employees quoted are as of the latter part of 1947. The data are for all nonagricultural industries, including construction.

1.4 THE BLS-STATE EMPLOYMENT STATISTICS MANUAL

1.4–1 Prefatory Note

Sections 5.1 and 5.4, volume I, set forth the basis of authority and controlling specifications for the present cooperative Federal-State Program, and section 2.4, volume I, identifies the instructional instruments through which policy, standards, and procedures are controlled. Among these instruments the *BLS-State Employment Statistics Manual* is the basic guide on techniques and procedures followed in the preparation of monthly estimates under the State Program. This *Manual* also supersedes the *BLS-State Employment Estimates Manual* issued in February 1945.

1.4–2 Organization of the Manual

The *Manual* is published in three volumes. Volume I, entitled *General Topics*, contains the most important background material for the program. It presents the most important basic policies, administrative rules, definitions, and terminology, and a summary of the history and present status of employment data in the United States. Volume II, *Operating Guide*, is the day-to-day working handbook. It is designed to present in its chapters all the basic procedural instructions necessary to the preparation of employment estimates. Volume III of the *Manual* is a *Technical Appendix*, devoted to theory and mathematical developments which underlie chosen procedures. Knowledge of the contents of volume III is not necessary to the compilation of estimates, but will lead to a clearer understanding of assumptions involved in the estimating procedures, and, in some instances, of dangers to which special attention might well be given.

1.4–3 Format

The general format of the *Manual* is illustrated by these pages. The three volumes are identified both by title and by capital Roman numerals. Each volume is arranged in major sections, sections, and subsections. The major sections are numbered in sequence by ordinary Arabic numerals. The sections are indicated by decimal numerals; e. g. 7.10. Subsections are identified by a dash number suffix; e. g. 7.10–2. Further breaks within a subsection are noted by parenthetic lower case roman letters. The word "section" is used in a generalized sense in all cross-references in the *Manual;* e. g. a reference to the third break in the second subsection in the 10th section of the third major section of volume I is worded "See volume I, section 3.10–2 (c)." Tables and figures are indicated by the section number followed by a decimal number in sequence. Thus, the fourth figure in section 7 is shown as figure 7.4.

The *Manual* title and volume number appear in the running head at the top of the left-hand pages. The title of the major section appears in the running head at the top of the right-hand pages. The date of issue is shown in the running head at the inside top of each page. A subsection number in bold type appears in the running head at the outside top of each page; on a left-hand page, this number indicates the first subsection, any part of which appears on the page; on a right-hand page, this number indicates the last subsection, any part of which appears on the page. Each section is introduced by a title in bold type centered across the page. Subsections are introduced by titles in smaller bold type which are set flush with the left margin of a column. Lesser breaks are occasionally given subtitles which appear in caps and small caps or in italics and are indented as are ordinary paragraphs.

1.4–4 Revisions

Revision of the *Manual* is accomplished by the issue of new pages which supplement or replace old pages. The date of revision and the number of the transmitting BLS Employment Instruction Series B memorandum are shown in the running head on each revised page. (See sec. 2.4–4 for complete description of series B memoranda.) No addenda to the *Manual* are issued. Each revision is in such form that, when revised, the *Manual* is complete in straight reading sequence. Occasionally, minor corrections to the *Manual* are handled by means of a *BLS Employment Instruction—Series B*, which

1.4–4 Revisions—Continued

directs recipients to make the necessary correction in ink on their copies of the *Manual*.

Inactive pages, when removed from the *Manual*, should not be destroyed, but should be endorsed "Inactive (or Superseded) (*Date*)", and filed for possible future reference.

Most revisions can be fitted into the old number sequence with no difficulty. In a few cases, it is necessary to use a suffix expander in the numbering. For instance, should it become necessary to insert a new section between old sections 7.2 and 7.3, the new section would be numbered 7.2A. The first subsection within the new section would be 7.2A–1.

SECTION 2

Administration

2.1 GENERAL

2.1–1 Scope of Section

The purpose of this section is to identify the principal sources and channels of administrative control of the State Program; to indicate the general pattern of interagency relationships; to summarize selected administrative practices not described elsewhere; and to describe the series of documents through which statistical standards and procedures are kept uniform.

Several important related matters which are treated elsewhere are intentionally omitted from this section:

(a) Basic program policy is presented in section 5 of volume I of this *Manual* (see especially sec. 5.1).

(b) For detail instructions covering budget, personnel, pay rolls, rent, equipment, supplies, travel, communication, and related subjects, the business management offices of affected agencies must be consulted.

(c) Detailed description of this *Manual* itself has already been presented in section 1.4 and in the table of contents.

2.2 ADMINISTRATIVE ORGANIZATION OF STATE PROGRAM

2.2–1 Participating Agencies

Many Federal agencies including BLS, BES, BOASI, Bureau of the Budget, Bureau of the Census, USES, Interstate Commerce Commission, Railroad Retirement Board, U. S. Maritime Commission, and others; and State agencies, including universities, labor and industrial departments, and UC agencies, contribute in some manner to the State program. The principal participants are BLS, BES, the BLS Contract State agencies (including UC agencies with BLS contracts) and State UC agencies which are not BLS contract agencies.

2.2–2 Organizational Structure

The administrative organizational structure of the State Program is complex, resting necessarily upon joint agreements among several independent agencies. The structure is built upon previously existing administrative forms of the several agencies, modified to be consistent with the basic policies stated in section 5. A highly simplified chart of the organization structure showing relationships among the principal participants is shown in figure 2.1. The major responsibilities of BES, BLS, and the State agencies are stated in section 5. Sections 2.2–3 to 2.2–6 amplify section 5 and the chart.

2.2–3 Bureau of Employment Security

The role of the Bureau of Employment Security with respect to the UC program and administration is unchanged over what it was prior to the inauguration of the cooperative State employment statistics program. In addition, BES serves in an advisory capacity to BLS on the State Program, is the agency through which the State Program is financed in States in which UC is the contract agency, and sees that specified uniform data on covered employment become available from all UC agencies in

2.2–3 Bureau of Employment Security—Con.

such a way as to be most useful in the employment statistics program.

BES exercises its administrative functions through the regional offices of the Social Security Administration. In all actions, BES gives careful consideration to recommendations of the Interstate Conference of Employment Security agencies.

2.2–4 BLS Washington Office

The Bureau of Labor Statistics has full responsibility for the development of employment, and hours and earnings series for the country as a whole, and has primary responsibility for the development of standards and techniques to effect uniformity of practice in the work of State agencies on current series in these fields. The Bureau's responsibilities are delegated to the Division of Employment and Occupational Outlook, and are carried out for Construction by the Branch of Construction Statistics, and for all other industries by the Employment Statistics Branch. The administrative line from headquarters to the field is a direct one between the BLS Washington office and the State agency. In selected matters, BLS designates its regional offices, regional directors, and regional employment analysts to act for the Washington office.

2.2–5 BLS Regional Offices

(a) THE REGIONAL OFFICE AND REGIONAL DIRECTOR. The regional director and his office

Summary Organizational Chart of the Federal-State Cooperative Employment Statistics Program

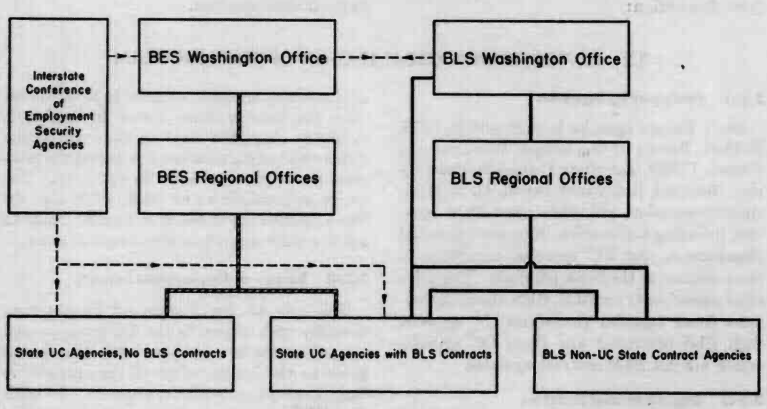

FIGURE 2.1

2.2–5 BLS Regional Offices—Continued

have the general function of representing BLS in the field. They have specific functions and tasks in the State employment program as designated from time to time by the Washington office. Regional offices give advice and service to State agencies as requested and within the limits of facilities. In many cases, the regional office passes on to Washington those requests which cannot be filled locally.

(b) THE REGIONAL EMPLOYMENT ANALYST. More than any other single person, the BLS regional analyst represents the Federal agencies in the preparation of current employment estimates. The analyst is both a member of the regional director's staff and a direct representative of the BLS Washington office. He interprets instructions, advises and assists State agencies on peculiar local problems, and stands ready at all times to facilitate the preparation of sound estimates. In many instances the analyst officially reviews and approves procedures or estimates; in others he assists the State agency in formulating controls and checks which will guarantee that local review will meet Federal standards.

2.2–6 The Contract State Agency

The operating State agency which carries out the employment program is usually referred to as the *BLS Contract State Agency*, although in most instances the compact between BLS and the State agency is less formal than a legal contract. More often there is merely a written working agreement between the two organizations which clarifies the precise duties of each agency. These agreements are in harmony with the basic policy set forth in section 5. Under them, the State agency normally collects and edits schedules, transmits schedules to Washington for national use, prepares State (and sometimes area) estimates of employment (and sometimes pay rolls, hours, and earnings), and publishes the local estimates. In order to satisfy postal regulations and for convenience of reference, a particular person in the Contract State agency is designated as the BLS "cooperating representative." This person is also known as the "West Dakota Representative" and is an official agent of BLS.

The BLS Contract States as of March 1, 1948 are shown in figure 2.2. They are the States with entries showing State officials connected with the employment statistics program.

Figure 2.2

STATE AGENCIES COOPERATING WITH THE BUREAU OF LABOR STATISTICS IN THE EMPLOYMENT, PAY ROLL, AND HOURS OF WORK PROGRAM

[*Cooperating arrangements exist only with States having entries opposite their names*]

State	Person receiving correspondence	
	Policy	Other
Alabama	Mr. S. Fleetwood Carnley, Director, Department of Industrial Relations, 711 High St., Montgomery 5, Ala.	Miss Ethelyn Gartman, Principal Statistician.
Arizona	Mr. Bruce Parkinson, Director, Unemployment Compensation Division, Employment Security Commission, Box 111, Phoenix, Ariz.	Mr. R. L. Maxey, Statistician.
Arkansas	Mr. Purifoy Gill, Administrator, Employment Security Division, Arkansas Department of Labor, 122 East Second St., Little Rock, Ark.	Mr. Owen Delap, Research and Statistics Unit.

Figure 2.2

STATE AGENCIES COOPERATING WITH THE BUREAU OF LABOR STATISTICS IN THE EMPLOYMENT, PAY ROLL, AND HOURS OF WORK PROGRAM—Continued

[Cooperating arrangements exist only with States having entries opposite their names]

State	Person receiving correspondence	
	Policy	Other
California	Mr. M. I. Gershenson, Chief, Division of Labor Statistics and Research, 965 Mission St., San Francisco 3, Calif.	(Address all correspondence to Mr. Gershenson.) Copies to Mrs. Mildred Stephenson.
Colorado		
Connecticut	Mr. Howard Hausman, Executive Director, Employment Security Division, Attention: David Pinsky, Research Director, 285 Broad St., Hartford 15, Conn.	
Delaware	Mr. Kenneth Snader, Statistician, Federal Reserve Bank of Philadelphia, 925 Chestnut St., Philadelphia 1, Pa.	Miss Helen Conine.
District of Columbia		
Florida	Mr. W. U. Norwood, Director, Unemployment Compensation Division, Florida Industrial Commission, Tallahassee, Fla.	Mr. Robert S. Beasley.
Georgia	Mr. Marion Williamson, Director, Employment Security Agency, Attention: Reports and Analysis Section, Room 624, State Office Building, Atlanta 3, Ga.	Mr. Ovid Stephenson, Chief, Research and Analysis, P. O. Box 1276, Atlanta 1, Ga.
Idaho	Mr. H. F. Garrett, Executive Director, Employment Security Agency, Industrial Accident Board, 153½ Eighth St., Boise, Idaho.	Mr. A. C. Beeman, Research and Statistics Unit.
Illinois	Mr. Robert L. Gordon, Director, Illinois Department of Labor, Room 1416, 160 North La Salle St., Chicago 1, Ill. (Copies of all policy letters should go to Mrs. Slotkin).	Mrs. Elizabeth J. Slotkin, Supervisor, Research and Statistics, Division of Unemployment Compensation, Illinois Department of Labor, Room 509, 222 West North Bank Drive, Chicago 54, Ill.

Figure 2.2

STATE AGENCIES COOPERATING WITH THE BUREAU OF LABOR STATISTICS IN THE EMPLOYMENT, PAY ROLL, AND HOURS OF WORK PROGRAM—Continued

[Cooperating arrangements exist only with States having entries opposite their names]

State	Person receiving correspondence	
	Policy	Other
Indiana	Miss Lucy Kantz, Research and Statistics Section, Employment Security Division, 141 South Meridian St., Indianapolis 12, Ind.	Miss Dorothea Anderson.
Iowa	Mr. Joseph R. Pefferle, Chairman, Employment Security Commission, 112 Eleventh St., Des Moines, Iowa.	Mr. Homer J. Freeman.
Kansas	Mr. P. G. Baird, Commissioner of Labor, Kansas State Labor Department, 800 Kansas Ave., Topeka, Kans.	
Kentucky		
Louisiana	Dr. P. F. Boyer, Bureau of Business Research, College of Commerce, Louisiana State University, Baton Rouge 3, La.	
Maine	Mr. Llewellyn C. Fortier, Chairman, Unemployment Compensation Commission, 331 Water St., Augusta, Maine.	Mr. Raphael Maher, Research and Statistics, 331 Water St., Augusta, Maine.
Maryland	Mrs. Margaret W. Kimble, Deputy Commissioner, Department of Labor and Industry, 12 East Mulberry St.. Baltimore 2. Md.	
Massachusetts	Mr. Lester E. Archibald, Director of Statistics, Massachusetts Department of Labor and Industries, Room 209, State House, Boston 33, Mass.	
Michigan	Mr. George W. Dean, Commissioner of Labor, Department of Labor and Industry, Lansing 13, Mich.	Mr. Henry E. Fink, Acting Director, Division of Industrial Statistics and Reports (Copies to Mr. Dean).
Minnesota	Mr. Ray Solem, Research and Statistics Section, Minnesota Division of Employment and Security, 369 Cedar St., St. Paul 1, Minn.	
Mississippi		

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Figure 2.2

STATE AGENCIES COOPERATING WITH THE BUREAU OF LABOR STATISTICS IN THE EMPLOYMENT, PAY ROLL, AND HOURS OF WORK PROGRAM—Continued

[Cooperating arrangements exist only with States having entries opposite their names]

State	Person receiving correspondence	
	Policy	Other
Missouri	Mr. Henry St. Clair, Chief of Analysis and Information, Division of Employment Security, Department of Labor and Industrial Relations, 1101 Capitol Ave., Jefferson City, Mo.	
Montana	Mr. Barclay Craighead, Chairman, Unemployment Compensation Commission of Montana, P. O. Box 1727, Helena, Mont.	
Nebraska	Mr. Robert T. Malone, Director, Division of Placement and Unemployment Insurance, Department of Labor, 134 South 12th St., Box 1033, Lincoln 1, Nebr.	Mr. Neal Hadsell, Chief, Research and Statistics Section.
Nevada	Cooperating Representative, Attn: Ednamay Hunt, Employment Security Department, Carson City, Nev.	
New Hampshire		
New Jersey	Mr. Harry C. Harper, Commissioner, New Jersey Department of Labor, Trenton 8, N. J.	Mr. James A. T. Gribbin, Bureau of Statistics and Records, Broad and State Sts.
New Mexico	Mr. Benjamin D. Luchini, Chairman–Executive Director, Employment Security Commission of New Mexico, P. O. Box 1301, Albuquerque, N. Mex.	Miss Frances Scrivner, Research and Statistics Unit.
New York	Mr. Meredith B. Givens, Director, Research and Statistics DPUI, New York State Department of Labor, 342 Madison Ave., New York 17, N. Y. (Copy to Miss Lauder).	Miss Mildred M. Lauder, Chief, Employment Reports and Statistics, Bureau of Research and Statistics, New York State Department of Labor, Kennedy Building, 39 Columbia St., Albany 1, N. Y. (Copy to Mr. Givens).
North Carolina	Mr. Forrest H. Shuford, Commissioner, North Carolina Department of Labor, Labor Building, Raleigh, N. C.	Mr. C. H. Pritchard, Statistical Division, Room 406, Labor Building.

Figure 2.2

STATE AGENCIES COOPERATING WITH THE BUREAU OF LABOR STATISTICS IN THE EMPLOYMENT, PAY ROLL, AND HOURS OF WORK PROGRAM—Continued

[Cooperating arrangements exist only with States having entries opposite their names]

State	Person receiving correspondence	
	Policy	Other
North Dakota		
Ohio		
Oklahoma	Mr. Morris Leonhard, Executive Director, Oklahoma Employment Security Commission, American National Building, Oklahoma City, 2, Okla.	Mr. B. F. Portis, Acting Director, Research and Statistics Section.
Oregon		
Pennsylvania (Nonmanufacturing)	Miss Grace D. Keiser, Acting Director, Bureau of Research and Information, Department of Labor and Industry, Harrisburg, Pa.	Mr. Walter Pestke.
Pennsylvania (Manufacturing)	Mr. Kenneth Snader, Statistician, Federal Reserve Bank of Philadelphia, 925 Chestnut St., Philadelphia 1, Pa.	Miss Helen M. Conine.
Rhode Island	Mr. Joseph T. Cahir, Acting Director of Labor, State House, Providence 2, R. I.	Mr. Joseph C. McCarten, Division of Census and Information.
South Carolina		
South Dakota		

Figure 2.2

STATE AGENCIES COOPERATING WITH THE BUREAU OF LABOR STATISTICS IN THE EMPLOYMENT, PAY ROLL, AND HOURS OF WORK PROGRAM—Continued

[Cooperating arrangements exist only with States having entries opposite their names]

State	Person receiving correspondence	
	Policy	Other
Tennessee	Mr. W. O. Hake, Commissioner, Attn: Dr. E. J. Eberling, Tennessee Department of Employment Security, Cotton States Building, Nashville 3, Tenn.	Dr. E. J. Eberling, Chief, Research and Statistical Section, Tennessee Department of Employment Security, 304 Cotton States Building, Nashville 3, Tenn.
Texas	Dr. Robert W. French, Bureau of Business Research, The University of Texas, Austin 12, Tex.	
Utah	Mr. B. L. Flanagan, Executive Director, Department of Employment Security, Continental Bank Building, Salt Lake City 13, Utah.	
Vermont	Mr. Henry A. Milne, Chairman, Unemployment Compensation Commission, Montpelier, Vt.	Mr. Jildo Cappio, Chief, Research and Statistics Section, Unemployment Compensation Commission, Montpelier, Vt.
Virginia	Mr. H. J. Smith, Director, Division of Research and Statistics, State Dept. of Labor and Industry, P. O. Drawer 3–D, Richmond 21, Va.	Miss Ann H. Hargrove.
Washington	Mr. John D. Davis, Commissioner, Employment Security Department, P. O. Box 367, Olympia, Wash.	Mr. Paul Wiseman, Chief, Research and Information Section.
West Virginia		
Wisconsin	Mr. O. A. Fried, Chief Statistician, Industrial Commission of Wisconsin, 137 East Wilson St., Madison 3, Wis.	Miss Paula E. Fischenich.
Wyoming	Mr. Alvin W. Harris, Executive Director, Employment Security Commission, P. O. Box 760, Casper, Wyo.	Mr. Scoville R. Heckart, Reports and Analysis Section.

2.3 BUDGET AND FISCAL MATTERS

2.3–1 Financing of State Program

If the State contract agency is not a UC agency, financial arrangements are settled by mutual agreement between BLS and the State agency, and are carried out in accordance with the fiscal rules of those two agencies. Usually BLS provides all schedules,[1] forms, envelopes, the penalty mail privilege, and some personnel; the State agency accepts the other costs.

If the contract agency is the UC agency, the program is ordinarily financed entirely from Federal funds (title III and/or BLS). In this case, the State prepares a budget and submits it through regular BES budgetary channels for joint review and approval in Washington by BLS and BES.

2.4 GUIDES, MANUALS, AND INSTRUCTIONS

2.4–1 Basic Instructional Documents

Seven types of instructional material relate, in whole or in part, specifically to the State employment statistics program. Three of these are issued by the Bureau of Employment Security, and control policy and procedure in the UC program, including data on covered employment; they are:

(a) THE GUIDE FOR STATE EMPLOYMENT SECURITY ADMINISTRATION.
- Part I, General administration.
- Part II, UC program.
- Part III, Research and statistics.
- Part IV, Fiscal and budgetary management.

(b) NUMBERED LETTER SERIES.
- General administration letters.
- UC program letters.
- Research and statistics letters.
- Fiscal and budgetary management letters.

(c) OTHER CORRESPONDENCE.

The other four are issued by BLS and cover all aspects of the State employment statistics program other than the basic collection, processing and reporting of UC covered employment data. These have precedence and importance in the order listed, except, of course, that the precedence may be modified by explicit written statement from the BLS Washington office.

(d) THE BLS-STATE EMPLOYMENT STATISTICS MANUAL.

(e) BLS EMPLOYMENT INSTRUCTIONS—SERIES A.

(f) BLS EMPLOYMENT INSTRUCTIONS—SERIES B.

(g) OTHER BLS INSTRUCTIONS.

Items (d) through (g) are described in the following sections. Should conflict arise, through oversight, between instructions issued by BES and those issued by BLS, the matter should be called to the attention of either Bureau and it will be resolved in Washington.

2.4–2 BLS–State Employment Statistics Manual

The *Statistics Manual* described in section 1.4, is the basic guide on techniques and procedures to be followed in the monthly State employment estimates program. Except where specifically waived by the Washington office of the BLS, it takes precedence over all other procedural instructions on this topic.

2.4–3 BLS Employment Instructions—Series A

This series consists of instructions which—

(a) are purely interim instructions,

(b) are of significance for only a very short period,

(c) are tentative or proposed instructions,

(d) are of comparatively minor importance,

(e) are very bulky and would crowd the *Manual*, or

(f) are so urgently needed that they must be issued in memorandum form, pending the more lengthy process of *Manual* revision.

These *Instructions* are issued in a numbered series of memoranda supplementary to the

[1] Only if the State agency uses the standard schedules.

2.4–3 BLS Employment Instructions—Series A—Continued

Manual. The format of these memoranda is illustrated by the following example:

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
Washington 25, D. C.

MEMORANDUM

SEPTEMBER 1, 1947.

To: All Regional Directors and Contract State Agencies

From: A. B. See, Chief, Division of Employment and Occupational Outlook

Subject: *BLS Employment Instructions—No. A–17*
Interim Procedure for Estimating Employment in Water Transportation, SSA Major Group 44.

1. Introduction
2. Sources of Data
3. Benchmark Estimates

2.4–4 BLS Employment Instructions—Series B

This is a secondary set of supplementary memoranda, similar to Series A but distinguished by the fact that they are used for:

(a) transmitting additional and revised pages of the *Manual*, or

(b) directing the recipients to make corrections, in ink, on their copies of the *Manual* (for minor changes only; all other revisions will be accomplished by the issue of new pages which supplement or replace old pages in the *Manual*). Series B memoranda are issued in the same format as Series A memoranda.

2.4–5 Other BLS Instructions

Every effort is made to incorporate all general instructions into either the *Manual* or *Series A or B Instructions*. There always remain, however, certain specialized or localized problems which are treated in ordinary correspondence, wire, personal visit, and telephone conversation.

2.5 BLS COMMUNICATIONS

2.5–1 Business Management

All communications of BLS regional offices involving business management subjects, and all telegraph, telephone, and teletype communications, whatever the subject, are handled in accordance with the *Manual of Business Management Procedures*. State agencies will handle such communications in accordance with whatever rules govern them on the subject. Instructions in section 2.5 apply only to other communications.

2.5–2 Mail From Washington to Regional Offices

All mail from Washington to the regional offices is prepared in memorandum form for the signature of the division chief; the memorandum is adressed to the regional director by name and title followed by the regional office city in parenthesis (or to "all regional directors"); the project number and a subject are shown, and reference to earlier correspondence if appropriate; on all copies the writer's and typist's initials, and the initiating branch are noted; the distribution of copies is shown on all copies except the original. Normally, the original and one copy (for the analyst) go to the regional director, one copy to Bureau general files, one copy to branch files, and one copy to the reading file. If other informational copies are prepared, the recipient should be indicated. The following example illustrates correct form:

2.5–2 Mail from Washington to Regional Offices—Continued

OFFICE MEMORANDUM UNITED STATES GOVERNMENT
Date: July 1, 1947

To: John Jay, Regional Director (New Chicago)

From: A. B. See, Chief
Division of Employment and Occupational Outlook

Subject: 2102—Revision of 1946 Employment Estimates for West Dakota—Your memorandum of June 25, 1947

AAA:BBB
Emp Stats
CC—ES Division
General Files
Reading Files
John Jay
Henry Kay
Frank Gee

2.5–3 Mail From Washington to Contract States

Mail from Washington to Contract States is prepared in exactly the same form and manner as that to regional offices with the following exceptions:

(a) The title of addressee is: Name (State); e. g., "S. T. Ewe (West Dakota)".

(b) Mail is prepared for signature of branch chief.

(c) No carbon is made for reading file (used internally in Washington office of BLS), but carbon is made for appropriate regional director.

2.5–4 Mail From Regional Offices to Washington

Mail from regional offices to Washington is prepared in a manner similar to that from Washington to the regional office. The following points are notable:

(a) All such mail is addressed:

To: Mr. Robert J. Myers.
From: Regional Director (Name).

(b) Original and two carbons prepared for Washington; other carbons optional with regional director.

2.5–5 Mail From Contract States to Washington

It is suggested that the cooperative representative, (see section 2.2–6 above) adopt the same form of Washington correspondence as is used by the BLS regional office and prepare all correspondence for signature of:

G. H. Eye, West Dakota Representative

Copies should be forwarded to the regional director.

2.6 OTHER INTERAGENCY RELATIONSHIPS

2.6–1 General Rule

For particular problems it will be necessary to make special arrangements, but the following general rule should cover most types of program contacts with governmental agencies other than the "principal participants" identified in section 2.2–1.

(a) Program arrangements with the Social Security Administration are handled for the State Program by BES.

(b) Program arrangements with all other Federal agencies are handled for the State Program by BLS.

(c) Program arrangements with State and local governmental units other than BLS contract agencies are handled by the State contract agency.

SECTION 3

Definitions and Terminology

3.1 DEFINITIONS

3.1–1 List of Definitions

Following is a list of definitions of terms used in the *Manual:*

BENCHMARK

The term "benchmark" for a specified class of employment is used to mean a complete count or an estimate (generally more accurate than can be prepared on a current basis) of the number of workers employed in the specified class as of a given date or during a stated period of time; e. g., it may be the number of workers employed in an industry for 1 month, the average number employed for 3 months, or the average number employed for a year. With this employment figure as a base or starting point, it is possible to compute a series of employment estimates by using the percentage changes in employment in a sample of establishments in the industry and applying this percentage change to the benchmark figure.

BIRTH

The term "birth" in this *Manual* refers to the beginning of operations by a new establishment.

CASUAL WORKERS

Workers not employed in the course of their employers' usual business; e. g., the odd-job man hired by the owner of a business establishment to shovel snow from the walk in front of his home. The usage of this term in the *Manual*, it should be noted, differs from its popular usage. Under the latter, casual workers are temporary or occasional employees.

CLASS-OF-WORKER EXCLUSIONS

(See "Exclusions")

COLLATION (MACHINE TABULATING TERMINOLOGY)

A machine tabulating term used to describe the process by which two sets of punch cards having certain identical characteristics are manipulated in such a way as to "match" those having identical codes. The special machine used for this purpose is called a "collator." This machine is used in the BLS employment work with "identical establishment" tabulations. The collator will also select cards with a certain characteristic code from the entire file and will check the sequence of a file for possible misfiling.

COVERED INDUSTRIES

As used in the *Manual*, the term refers to industries consisting of establishments generally subject to the unemployment compensation act of a State. Under this definition agriculture is not a covered industry because farms are not generally subject to the provisions of those acts, but retail food stores do constitute a covered industry because they are subject to all State unemployment compensation acts. While an industry may generally be subject to the unemployment compensation acts, some establishments in the industry may not be covered because they fall below the State minimum requirements for coverage. "Covered employment," then, is generally less inclusive a concept than "covered industry."

CURRENT PRODUCT CLASSIFICATION

(See "Recent-Product Classification")

3.1–1 List of Definitions—Continued

DEATH

The term "death" in this *Manual* refers to the permanent closing of an establishment.

DELINQUENT REPORTS

"Delinquent reports" is a term used to designate reports which were not received as of the cut-off date for a specified tabulation. In the *Manual*, this term is used particularly in discussions of UC and OASI data. In BLS monthly operations, an analogous term is *late* reports.

EDITING

The examination of statistical schedules prior to tabulation. Also, the examination of listings and tabulations for completeness and internal consistency.

EMPLOYEES

The Bureau of the Budget standard definitions of workers to be used in reporting employment, pay roll, and man-hour data by manufacturing establishments apply to:

All Employees. (For definition, see "Total Employment.") This group is composed of the following subclasses:

Production and Related Workers. (For definition, see "Production Workers.")

Force-Account Construction Workers. (For definition, see "Force-Account Workers.")

Administrative, Supervisory, Sales, Technical and Office Personnel. (For definition, see "Nonproduction Workers.")

The term "employees" used alone, refers to the employment totals requested in the 1946 BLS schedules from specified nonmanufacturing industries. The 1947 schedules, however, requested that "nonsupervisory employees" and "all employees" be reported by these industries. On the 1948 schedules, these groups are specified more carefully. The following paragraph lists briefly the industries from which specified employment items are requested. Section 4, volume III, treats the subject of schedules in detailed fashion.

The 1948 BLS schedules request "all employees" and "production and related workers" from manufacturing, mining, laundries, cleaning and dyeing, and crude petroleum and natural-gas production establishments. Schedules for public utilities, hotels, retail trade, wholesale trade, insurance or security brokerage, and finance and miscellaneous request "nonsupervisory employees and working supervisors" and "all employees."

"Nonsupervisory employees and working supervisors" include office and clerical, direct selling and all other employees (not above the working supervisory level), both full and part time, on either salary or commission basis, who worked or received pay for any part of the period reported, as well as employees on paid vacation during the pay period covered. Members of the armed forces, pensioners, and others carried on the rolls in a pay or nonpay status but not working during the period are excluded.

Supervisory employees represent the difference between all employees and nonsupervisory employees, and include the following: officers of corporations, and other principal executives, such as general managers, superintendents, and heads of departments whose work is mainly supervisory. Proprietors, owners, and partners of unincorporated firms are excluded.

In order to avoid excessive verbiage in the *Manual*, the terms "production workers" and "nonproduction workers" will frequently be used in discussions applicable to nonmanufacturing as well as manufacturing industries to stand also for "nonsupervisory employees and working supervisors" and "supervisory employees," respectively.

In a few specified industries, the employment data requested in the BLS schedules differ from those listed above. Thus, the telephone industry schedule requests data for employees covered by the Fair Labor Standards Act and also the total number of employees, and the telegraph industry furnishes data for all salaried, direct operations employees. The term "production workers" is also used to describe these employees.

3.1–1 List of Definitions—Continued

EMPLOYER

The term "employer" means a person, company, firm, corporation, partnership, organization, institution, contractor, subcontractor, or Government agency which pays wages or salaries to individuals in return for services rendered or work performed. An employer may be a single-unit employer having all of his employees at one site or location, or a multi-unit employer having employees at two or more sites or locations.

ESTABLISHMENT

Unless otherwise indicated, the term "establishment" refers to a single physical location at which an employer carries on his business activities. An establishment may be a store, shop, plant, factory, mine, construction site, farm, office, school, church, Navy yard, mill, or even a private home. Most employers have but one establishment, but some employers such as the larger grocery chains have hundreds of establishments. For purposes of the State program, each separate site or location is considered as a separate establishment. In addition, when separate reports are received for more than one department of an establishment as defined above, each department is counted as if it were a separate establishment.

ESTABLISHMENT EXCLUSIONS

(See "exclusions")

EXCLUSIONS

Class-of-Worker Exclusions

The estimates of employment are restricted to wage and salaried workers in each industry or group. Proprietors, firm members, and self-employed persons are excluded unless they draw salaries which are subject to social security or unemployment taxes. Unpaid family workers are excluded.

Persons receiving pensions are excluded from employment estimates.

The inmates of institutions, although they may be employed and perform work on products intended for sale, are not included in the estimates. The regular employees of the institutions, engaged to manage, operate, and maintain the establishment, are included.

All government employees are included in the estimates for public employment and excluded from estimates for other industries.

Establishment Exclusions

The following groups are excluded from the estimates because of the nature of the establishment employing the workers:

Farms. All agriculture is excluded, whether the persons engaged are farm operators, unpaid family workers, or hired laborers. For practical reasons "agriculture" is defined for the purposes of these figures as it is defined by group 01 of the SSA Industrial Classification Code. Hence workers covered by UC and/or OASI but classified in group 01 are excluded from BLS estimates, but employees of farmers covered by social security but classified outside of group 01 are included. For example, a farmer operating a filling station would have to pay tax on his filling station employees. These employees would come within the scope of the estimates, even though the principal activity of their employer (agriculture) places him in an industry not generally covered.

Private Homes. Persons employed by private homes in domestic capacities, such as maids, cooks, butlers, chauffeurs, housemen, and other domestic servants, are excluded. If a private home employs workers regularly in connection with some business conducted for profit, it is considered an industrial establishment for the purposes of these estimates and is covered in the estimates. If a physician conducts his business in an office located in his home and hires a nurse or secretary to assist him, that office becomes an establishment, within the scope of the estimates. Laundresses coming into private homes to do work are considered as domestics, but if a laundress takes the work out to do it at her own home or laundry, her employees (if any) are covered as wage and salary workers in laundries. The laundress herself would be considered as self-employed and therefore excluded.

3.1–1 List of Definitions—Continued

Geographic Exclusions

The estimates are restricted to wage and salary workers of establishments in the continental United States. In the estimates for any State, persons living in the State but not working therein are excluded while persons living outside the State but working therein are included.

Occupational Exclusions

Among wage and salaried workers some are omitted because of the type of their employment: (1) persons in the armed forces of the United States, who are excluded from the estimates of government employment, and (2) casual workers not employed in the course of their employers' usual business.

Part-Time Exclusions

The estimates include both full-time and part-time workers. However, there are many workers who regularly hold two or more jobs at the same time. If the principal job of such employees could be easily determined and taken into account when compiling data from establishment pay rolls, it would be possible to exclude the factor of duplication when adding the various establishment estimates to yield a total employment figure. However, it is only in the case of government employment that this factor can be taken into account at the present time. (See "Nominal Employee")

FIELD (MACHINE TABULATING TERMINOLOGY)

A "field" on a tabulating machine punch card consists of a column or groups of columns allotted to a particular type of information.

FORCE-ACCOUNT CONSTRUCTION

Force-account construction work includes new construction and major additions, alterations, and repairs to buildings, structures and other immobile physical improvements done by establishments acting as their own contractors, that is, firms which use construction workers carried on their own pay rolls to perform construction work on their own buildings, structures, and appurtenances which would otherwise be done by construction contractors. It does not include minor repair and maintenance work done by regularly employed maintenance crews and charged to operating expenses.

FORCE-ACCOUNT CONSTRUCTION WORKERS

Includes employees on establishment's pay roll engaged in construction of *major* additions or alterations to the plant who are utilized as a separate work force. Does not include workers engaged in regular maintenance and repair operations.

GANG-PUNCHING (MACHINE TABULATING TERMINOLOGY)

(See "Reproduction")

GEOGRAPHIC CLASSIFICATION

"Geographic classification" refers to the classification of employment by State or other areas.

GEOGRAPHIC EXCLUSIONS

(See "Exclusions")

IDENTICAL ESTABLISHMENTS

The method used most frequently by BLS in estimating employment changes is the "identical-establishment comparison." By this method figures are totaled for each of two consecutive months for all establishments which reported in the two consecutive months. Care is taken that no establishment is represented in the totals for one month but not for the other month. A report of "zero employment" is, however, a legitimate report.

INDEX NUMBERS

Index numbers are numbers used to measure changes in groups of related data. When each of a series of numbers is divided by one of the numbers or by an average of two or more of the numbers (called the base), the resulting quotients are a simple form of index numbers, called relatives.

INDUSTRIAL CLASSIFICATION

Our economic structure comprises a large number of establishments producing a great variety of goods and services. In order that this heterogeneous field of economic activity may be studied, it is necessary to resolve these various activities into groups or categories. This breakdown is called industrial classification.

3.1–1 List of Definitions—Continued

Existing systems of industrial classification consist of broad divisions of industry, with finer subdivisions to permit more refined classification. The BLS uses the Standard Industrial Classification for manufacturing and the Social Security Administration classification for nonmanufacturing.

In many instances, business establishments engage in several lines of activity, within a broad industry division or in two or more such divisions. Such are classified according to their primary or principal activity unless a departmental break is reported (see definition of "Reporting Unit").

"Primary" engagement or activity is determined by each agency in accordance with some accepted criterion. The 1939 Census of Manufactures considered that product which had the largest gross value during 1939 as determining the primary activity of the establishment. The BES determines principal activity on the basis of gross value of product unless information is available on the man-months expended on the several products throughout the year, in which case man-mouths is controlling. The BOASI uses gross value of product. The BLS schedule for manufacturing industries for 1948 asks that "principal products" be listed "in order of importance of annual sales value."

INDUSTRIAL CLASSIFICATION CODES

The numbering system used to designate industrial classification.

INDUSTRY

An "industry" is defined generally as a group of establishments which are primarily engaged in the manufacture or distribution or sale of a given product or in rendering a given type of service. More specifically, it is defined, in this project, as a group of establishments which are so engaged at a particular time.

INSTALLATION (CONSTRUCTION INDUSTRY)

"Installations" involve the placing of equipment which, once put in place, becomes an integral part of the completed project.

LABOR FORCE

The *total* labor force is a term used to designate all members of the population who are employed, full- or part-time, together with those who are unemployed, but seeking employment. It includes both self-employed, wage or salary workers, and unpaid family workers, farm operators, hired farm workers, plus unemployed persons seeking work, and includes members of the armed forces. The *civilian* labor force includes all the foregoing, except members of the armed forces. Housewives, students, institutional inmates, retired or disabled persons, and persons involuntarily idle are not included in the labor force.

LAPSES (CONSTRUCTION INDUSTRY)

Instances in which building permits issued are allowed to expire without starting construction are termed "lapses". The term "cancellations," although more restricted in meaning, is often used interchangeably with "lapses."

LINK-RELATIVES

In a series of data, when each figure is expressed as a ratio of the preceding figure, the resulting ratios are termed link-relatives. The link-relative method is used in computing BLS estimates. Employment in sample establishments in a given month is expressed as the ratio of employment in identical sample establishments in the previous month. This ratio or link-relative is applied to the total employment estimate for the previous month to obtain the current month estimate.

LISTING (MACHINE TABULATING TERMINOLOGY)

If a record is made of all or part of the data on every card passing through the tabulator machine, the resulting machine tape is called a listing. A listing may also carry totals. In the latter case, the machine tape is called a listing tabulation. If the machine tape carries totals only, it is called a tabulation.

LISTING TABULATION (MACHINE TABULATING TERMINOLOGY)

(See "Listing")

MASTER CARD (MACHINE TABULATING TERMINOLOGY)

(See "Reproduction")

3.1–1 List of Definitions—Continued

NOMINAL EMPLOYEE

With respect to local government, State, and Federal employment, persons who do not receive substantial amounts of compensation or who probably have other major jobs in which they normally would appear in the nonagricultural employment series are considered "Nominal Employees" by BLS and are excluded from the public employment estimates.

NONPRODUCTION WORKERS

Employees in manufacturing, mining and other selected industries who are in the following occupational categories: executive, purchasing, accounting, finance, legal, personnel, professional and technical activities, sales, sales-delivery, advertising, credit, collection, installation and servicing of own products, routine office functions, factory supervision (above working-foreman level), force-account construction, and other workers not included as production workers. (See "Production Workers".) Employment figures for nonproduction workers were collected by BLS for the first time in January 1943.

NONSUPERVISORY EMPLOYEES

(See "Employees")

OCCUPATIONAL EXCLUSIONS

(See "Exclusions")

OFF-SITE EMPLOYMENT (CONSTRUCTION INDUSTRY)

Construction employees not working at the place of construction. There are three types of off-site employees in construction establishments: central office employees, shop personnel, and others engaged in nonconstruction activities such as wholesale or retail trade.

ON-SITE EMPLOYMENT (CONSTRUCTION INDUSTRY)

Construction employees working at the place of construction.

PART-TIME EXCLUSIONS

(See "Exclusions")

PREPUNCHED CARD (MACHINE TABULATING TERMINOLOGY)

(See "Reproduction")

PRODUCTION WORKERS

The BLS schedules for manufacturing and certain nonmanufacturing industries provide spaces for recording employment, pay rolls, and man-hours of "production and related workers". Part of the definition given in the manufacturing schedule is: "Includes working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e. g., power plant), and record-keeping, and other services closely associated with the above production operations." The "production worker" concept was adopted by BLS in January 1945. Prior to this date the types of data listed were collected for "wage earners". See "Wage Earner" below.

RECENT-PRODUCT CLASSIFICATION

The system of industrial classification under which the classification of an establishment is changed as soon as the major product or activity of the establishment is changed. This system is also termed current-product classification.

RECIPROCAL CARDS (MACHINE TABULATING TERMINOLOGY)

At present, there are practically no direct division tabulating machines in use. Division, however, may be performed indirectly by the use of reciprocal cards containing the reciprocal of the divisor. These reciprocals are multiplied by the dividend to secure the quotient desired. If considerable division is contemplated, a file can be kept of reciprocal cards, showing both the divisor and its reciprocal.

REFILING PROJECT

In 1942, the BOASI undertook a project (sometimes referred to as the "refiling" project) designed to review the classification of all reporting employers and to make the necessary revisions. A form which requested detailed product and activity information for 1939 and 1942 was sent to each employer. This form was called the *Employer Information Schedule*, Form OAA–100. Each employer was requested

3.1–1 List of Definitions—Continued

to furnish for each of his establishments a list of his products according to percentage of gross value, if he were engaged in manufacturing, or a statement of the nature of his business if he were engaged in nonmanufacturing. Later these forms, or copies of them, were sent to each UC agency so that the forms could be used to bring up to date the industrial classification of establishments in the UC files. Most of the States had accomplished this review by the middle of 1944. A similar refiling project for most of the manufacturing industries was completed in late 1946, and State UC agencies were expected to incorporate the revisions in the tabulations for the first quarter of 1947.

REPORTING SAMPLE

The group of establishments whose reported data on employment to the BLS are used to estimate changes in the volume of total employment.

REPORTING UNIT

A reporting unit is that unit which submits employment reports to a governmental agency. It may be an establishment, a group of establishments, a department, agency, division, system, or area. Since each agency has its own purposes to fulfill, each often has its own definition of a reporting unit. The reporting unit of the Bureau of Labor Statistics is described below.

The BLS Reporting Unit.—Most of the schedules received by BLS from employers cover a single establishment. Many reports cover more than one establishment, and in such cases the actual number of establishments covered in the report is combined in the tabulation. In some cases separate reports are obtained from one or more *departments* of an establishment. Where this is the case, each such department is counted exactly as if it were a distinct establishment. The figure appearing on a BLS tabulation which is referred to as the "number of establishments", therefore, consists of the total number of establishments reported on individual and consolidated reports, plus the number of departments reported separately.

REPRODUCTION (MACHINE TABULATING TERMINOLOGY)

The term "reproduction" is used specifically to refer to the process whereby (1) a duplicate set of cards is prepared from an original set; or (2) the codes in certain fields on one set of cards are punched into designated blank fields of another set. This process is performed automatically by a machine known as a *reproducer*.

The term is also used in a general sense to include methods of punching identical sets of codes into certain fields of blocks of cards, as follows:

(1) A *master card* with the appropriate codes punched is inserted before a block of cards. The codes on the master card are then automatically punched into predetermined fields on each card of the block. The reproducer is used in this operation which is specifically referred to as *gang punching*.

(2) An operation specifically called *duplication* involves using a *prepunched* master card in the *duplicator* of a key-punch machine. Whenever a detail card reaches the fields covered by the prepunched card, the duplicator will automatically punch the data into the detail card. However, the duplicating feature is not available on all key-punch machines.

SAMPLE DESIGN

The method or plan that is developed for selecting a sample for the purpose of estimating certain characteristics of a larger group (called "Population" or "Universe").

SITE EMPLOYMENT

(Same as "On-Site Employment".)

SMALL-FIRM MULTIPLIER

The small-firm multiplier or a factor obtained by interpolating between two small-firm multipliers is applied to UC employment data (for States whose UC law does not cover small firms) in order to estimate total employment for that month.

SORTING (MACHINE TABULATING TERMINOLOGY)

Sorting is the machine process by which punched cards are placed in numerical or alpha-

3.1–1 List of Definitions—Continued

betical order. In this process the cards are run through the machine once for each column on which they are to be sorted for numerical punches and twice in each column for alphabetical punches.

SUPERVISORY EMPLOYEES

(See "Employees")

TABULATION

(See "Listing")

TAXABLE WAGES

One of the items reported in quarterly returns by employers subject to the unemployment compensation laws and to the old-age and survivors tax is the total amount of wages subject to tax for the 3-month period. This figure, particularly in the last quarter of the year, is often less than total pay roll (which is also reported on the UC returns) because only the first $3,000 paid to a worker by an employer during a calendar year is considered taxable.

$3,000 PROVISION

The provision of UC and OASI laws which declares all wages paid to an employee in excess of $3,000 per employer in any calendar year to be nontaxable.

TOTAL WAGES

A term used by UC agencies to describe the entire amount of wages paid to employees as distinguished from the wages subject to tax.

TOTAL EMPLOYMENT

Total employment in an establishment, as defined for purposes of this project, includes all paid employees engaged in the regular business of the establishment in which they are employed. Supervisory, managerial, technical, and executive personnel are thus included. Casual workers (see definition) are excluded. The definition of total employment includes both full- and part-time workers.[1] Force-account construction workers are included. Unpaid family workers and proprietors and firm members are excluded. Persons in the armed forces are excluded; persons receiving pensions are also excluded from total employment, as defined for this project.

[1] For exception to inclusion of part-time employees, see "Nominal Employee."

TREND

The term "trend" is used in connection with employment estimates to denote the month-to-month movement of the series for which estimates are required.

NOTE. The term "trend" as used in this *Manual* should not be confused with the "trend" or "secular trend" that is commonly used in the statistical treatment of time series to denote long-time growth or decline characteristics of an industry. When the term "trend" is used in the latter sense in the *Manual*, it will be prefixed by some distinguishing word or phrase.

TURNOVER

Accessions to and separations from an establishment's pay roll in a stated period. The BLS prepares monthly data on rates of turnover for accessions and for separations and component personnel actions. The monthly rates are computed by dividing the total number of accessions (or separations) during the month by the total number on the pay roll as of the 15th of the month.

NOTE. Employment as reported on reports of employment and pay roll to BLS includes turnover in the period covered. In this sense the number of employees counted exceeds the number of workers employed at any time.

TWENTY-WEEK PROVISION

Under the size-of-firm provision in several State unemployment compensation laws, the employer is liable for coverage only if he has employed the specified number of workers in a specified number of weeks—usually 20—during the calendar year. Employment for seasonal enterprises is thus frequently excluded from coverage.

VOLUNTARY COVERAGE

In most States, firms employing fewer workers than the number specified by State unemployment compensation laws for obligatory coverage may elect voluntarily to participate in the unemployment compensation program.

3.1–1 List of Definitions—Continued

WAGE EARNER

The BLS manufacturing schedule prior to 1945 defined "wage earners" as follows: "All skilled and unskilled piece- and time-workers in production and other departments such as maintenance, shipping, warehousing, power plant, etc.; working foremen, and gang and straw bosses, but not those whose work is primarily supervisory." The following exclusions are stated on the schedule: "office and clerical, sales, executive, managerial, supervisory, technical, and professional personnel . . . and those who are installing product, or who are engaged in construction if such work involves additions to or major repairs of plant or equipment" are not covered as wage earners. Beginning with 1945, the concept of wage earner was replaced with that of production worker. See "Production Worker."

WAGE ITEM

Each employer subject to OASI or UC taxes files a quarterly tax report which among other items gives the total or taxable wages paid to each individual employee during the quarter. Each employee separately reported on the tax report is called a wage item.

WEDGING

The process of adjusting a series of estimates for a period prior to that for which a new benchmark is available, so that the estimate for the new benchmark month, when raised (or lowered) to the new benchmark level, forms a continuous series with the revised estimates for the earlier months. Wedging is a form of interpolation.

3.2 ABBREVIATIONS

3.2–1 List of Abbreviations

Following is a list of abbreviations used in the *Manual:*

AGC	Associated General Contractors.
AMA	American Medical Association; Automobile Manufacturers Association.
AT&T	American Telephone and Telegraph Company.
BES	Bureau of Employment Security of the Social Security Administration. Federal Security Agency.
BFDC	Bureau of Foreign and Domestic Commerce of the Department of Commerce.
BLS	Bureau of Labor Statistics of the Department of Labor.
BOASI	Bureau of Old-Age and Survivors Insurance of the Social Security Administration, Federal Security Agency.
CSC	United States Civil Service Commission.
DPC	Defense Plant Corporation.
DSS	Division of Statistical Standards of the Bureau of the Budget.
EI	Employer's Identification (number in UC or BOASI files).
FCC	Federal Communications Commission.
FDIC	Federal Deposit Insurance Corporation.
FHA	Federal Housing Authority.
FPC	Federal Power Commission.
FRB	Federal Reserve Board
FWD	F. W. Dodge Corporation.
HOLC	Home Owners Loan Corporation.
IBM	International Business Machines Corporation.
ICC	Interstate Commerce Commission.
MLR	Monthly Labor Review (published by the Bureau of Labor Statistics).
MRLF	Monthly Report on the Labor Force (published by the Bureau of the Census).
RFC	Reconstruction Finance Corporation.
RRB	Railroad Retirement Board.
SIC	Standard Industrial Classification (published by the Division of Statistical Standards, Bureau of the Budget).

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3.2–1 List of Abbreviations—Continued

SSA	Social Security Administration of the Federal Security Agency (replaces the former Social Security Board).
SWPC	Smaller War Plants Corporation.
UC	Unemployment Compensation; frequently the abbreviation is used to refer to the unemployment compensation agency in a State.
UI	Unemployment Insurance; sometimes this abbreviation is used instead of UC in referring to unemployment compensation agencies.
USES	United States Employment Service.
USMC	United States Maritime Commission.
USOE	United States Office of Education of the Federal Security Agency.
WMC	War Manpower Commission.
WPB	War Production Board.

SECTION 4

Employment Data in the United States

4.1 BRIEF HISTORY OF EMPLOYMENT DATA

4.1–1 Before 1915

Prior to 1915, the principal sources of employment data in the United States were the census surveys—the decennial Census of Population and the biennial Census of Manufactures. There existed no regular compilation of employment data between the census dates.

4.1–2 1915–1928

(a) In 1915, the Bureau of Labor Statistics began to issue employment data. At first the manufacturing data were shown as merely percentage changes; but in April 1924 and March 1925, there were published for the first time the employment and pay-roll indexes, respectively. These first series were based upon 1923 as 100.

(b) "The monthly studies of employment and pay rolls were initiated in October 1915. At that time four manufacturing industries were surveyed. By November 1916, the monthly surveys had been expanded to cover establishments in 13 industries and this number remained unchanged until July 1922. The depression of 1920 focused attention on the need for more comprehensive information concerning the current employment situation. Through additional funds made available to the Bureau of Labor Statistics by the Congress for the fiscal year 1922–23, the monthly employment surveys were extended to cover 29 additional manufacturing industries in July 1922."[1] By 1928, employment and pay-roll indexes were being published regularly in the Bureau's *Monthly Labor Review* for 54 manufacturing industries in 12 industrial groups. There was, however, no attempt made at this time to relate the changes shown in all manufacturing to the census base (except for the use of census figures for 1923 and 1925 as weights) nor were the indexes corrected for the trends indicated by the biennial census levels. By 1928 percentage changes in employment and pay rolls by States and industry groups were being published also.

4.1–3 1929–1935

(a) Several important developments took place during this 6-year period. In 1931 an examination of the Bureau factory employment indexes and the more complete Census of Manufactures summaries over the period 1923–29 showed a downward bias of approximately 12 percent in the Bureau's indexes. If factory employment had been estimated for the year 1929 on the basis of the Bureau's unadjusted indexes, using the 1923 index as comparable to census factory employment in that year, the Bureau's estimate would have been below the 1929 census levels by approximately 1,000,000 workers. Using a procedure inaugurated by the Federal Reserve Board, the Bureau of Labor Statistics revised its indexes and estimates over the period 1923–29 so that they approximated the census levels in each of the years 1923, 1925, 1927, and 1929. The results of this revision were published by the Bureau in Bulletin 610.[2] In 1929, the Bureau added 11 nonmanufacturing industries to the list of those for which employment and pay roll indexes were regularly

[1] *Procedures Used in Compiling Monthly Statistics Relating to Employment and Pay Rolls* (mimeographed), U. S. Department of Labor, Bureau of Labor Statistics, May 1945, p. 1.

[2] Bulletin of the U. S. Bureau of Labor Statistics, No. 610, "Revised Indexes of Factory Employment and Pay Rolls, 1919 to 1933," by Lewis E. Talbert and Alice Olenin, Washington, D. C., February 1935.

4.1–3 1929–1935—Continued

published. These were based upon the year 1929 instead of upon the 3-year period 1923–25.

(b) In January 1933, the sample averages of hours and earnings were published for the first time. There were 15 industries covered at the start and this number rose to 20 by December 1935. By this time the employment and pay roll indexes were published for 90 manufacturing industries in 15 industrial groups.

4.1–4 1936–1945

(a) Beginning in 1936 the Bureau compiled and published, in mimeographed form, its series on total nonagricultural employment. This was the first attempt of the BLS at measuring the actual numbers of persons employed, even for manufacturing as a whole. In September 1940, this table, showing several major industry divisions, was reproduced in the *Monthly Labor Review*, where it has appeared monthly ever since. The over-all level of the nonagricultural series in the base period (April 1930) was determined by the Census of Population data on employment and unemployment. In a subsequent revision of these series, use was made of an important rearrangement of these data by Mr. W. S. Woytinsky.[3] Beginning in 1939–40, when the first statistics on employment from the State unemployment compensation programs became available, these data became the most important source for determining base period levels.

(b) The data used for benchmarks before the advent of social security and unemployment compensation data were inadequate in the following respects: (1) Where they were establishment reports, such as the Census of Manufactures and of Business, they were not comprehensive enough to serve as benchmarks for all nonagricultural employment; (2) where they were population (that is, household) reports, they were comprehensive enough but suffered from poor industrial classification and different employment definitions. The extent to which the social security programs produced adequate statistical benchmarks will be discussed in more detail later, but it may be said that both of the above serious draw-backs of census figures for our purposes were to a great extent overcome. Therefore, the BLS began in 1940 to rely upon the unemployment compensation data to check the levels and trends of its employment estimates, and the nonagricultural series revisions published in that year were based upon them. At this time, also, the first State estimates of employment in nonagricultural establishments were published.

(c) During the period 1936 to 1940, a number of different employment series were published in the United States, most of them being issued in conjunction with estimates of unemployment. Predominant among these were the series released by the American Federation of Labor, the Committee for Industrial Organization, the National Industrial Conference Board, and the Alexander Hamilton Institute. In these series the employment estimates were invariably used with projections of the 1930 labor force to secure estimates of unemployment. There were such wide differences in the unemployment residuals that, by the time WPA began direct measurement of unemployment around 1940, residual method was largely discredited as were the labor force estimates and some of the employment estimates.

(d) The history of employment and pay roll data during the war period is largely the story of the work of five agencies in this field: BLS, WPB, WMC, Census, SSB (now SSA). It was a period in which the problems of employment measurement were crystallized. Attention was focussed upon the differences between establishment and household reporting, and the Bureau entered upon a continuous, large-scale compilation of employment estimates in the field.

4.1–5 Present Role of the BLS

The present role of the Bureau of Labor Statistics in the employment Statistics field is described in sections 1 and 5 of this volume.

[3] W. S. Woytinsky, "The Labor Supply in the United States," Committee on Social Security, Washington, D. C., December 1936.

4.2 BLS STATE ESTIMATES BEFORE THE 1945 STATE PROGRAM

4.2–1 Indexes and Estimates Before 1940

(a) By 1915, when the BLS first began publication of national employment data, a few States were already publishing employment data monthly. However, more comprehensive monthly statistics on employment by State became available much later. By 1938, the BLS was publishing regularly in the *Monthly Labor Review* a table of employment statistics for States. This table was entitled: "Percent of Change in Employment and Pay Rolls in Specific States." The data were percentage changes in the number of employees and in the amount of weekly pay rolls from the preceding to the current month for certain industry groups. For some periods the sample data themselves were published, with no indication, however, of the extent of sample coverage. Although the coverage differed widely as between manufacturing and utilities on the one hand and trade and services on the other, there was published in 1936 and later years an "all groups" summary, in which the various sample data were combined without weighting. Similarly, the data for manufacturing published in the same table were not weighted, with a consequent under-representation of nondurable goods. It is probable that these figures, despite their weaknesses, served a real need for geographic breakdowns of employment statistics data outside of those States which had their own statistics. In those instances where a State agency had its own series of employment and pay roll data, the BLS entered into cooperative arrangements to avoid duplicate contacts with employers in those States. Since some of these States had introduced weighting procedures into their figures, the BLS adopted the policy of publishing the State agency's own figures in the State table referred to earlier in this paragraph.

(b) By 1936 it had become apparent that something more than the percentage changes by State were needed to round out the economic picture of the regions and States. In order to provide some answer to the questions being raised at that time about the relative rates of "recovery" among the States, it was decided that the percentage changes by industry would be combined into a single weighted index for each State. This was done, the new index being based upon the fiscal year 1932-33, which represented in many States the "floor" of the depression period. This index was not published, but was used extensively to answer requests concerning the degree of recovery which had been reached in any State and for comparison with other economic series. The weights used in this index were derived from 1933 Census of Manufactures data, 1932 Bureau of Mines data, and 1933 Census of American Business data.

4.2–2 First BLS State Estimate Project, 1940

The material referred to in the above paragraph was rendered obsolete by the advent of the unemployment compensation data which yielded more comprehensive benchmark weights. The grave need for State estimates of employment in 1938–39 resulted in the creation of a special Division in the BLS, charged with the sole responsibility of compiling estimates of nonagricultural employment. The first attempt resulted in estimates for 23 States, but those were withheld from publication because it was feared that the selection of the States would have adverse political consequences. In 1940, however, nonagricultural employment estimates for 48 States and the District of Columbia were published, each State series being the sum of from 20 to 60 individually estimated components. Unemployment compensation data for 1938, census data for 1937, and other sources used in the national series provided the basic materials, along with the regular BLS sample reports. These estimates were revised in 1942, using 1939, 1940, and preliminary 1941 UC data and the data from the 1939 Census of Manufactures. They were published regularly until May 1947. The State estimates for 1939–41 resulting from this work are still the most satisfactory figures of this kind in existence; estimates for later years are rapidly being replaced by the more painstaking work now being done in the Con-

4.2–2 First BLS State Estimate Project, 1940—Continued

tract State agencies. The only State data currently prepared in Washington are monthly estimates of total employment in manufacturing for noncontract States.

4.2–3 Status of Estimates in 1944

(a) In 1943, the State and national employment estimates were given a fairly thorough overhauling, with the 1941 UC data being used extensively for the correction of trends and levels. Because of the vast differences between the BLS levels and those of the MRLF series of national estimates, in the trade and service components, and since the 1943 revisions would have accentuated these differences, the BLS withheld the revisions in these two groups pending the emergence of corroborating evidence to support the revised data. The trade and service revisions were also withheld from the State estimates for the sake of consistency. Later, revisions were made at the national level, but facilities were then not available to revise the State estimates.

(b) In 1944, the BLS national figures were receiving considerable criticism, one of the most severe being directed at the detailed industries within manufacturing 2-digit groups, which had not been adjusted to any benchmark since 1939 because there had been no Census of Manufactures. At the turn of the year this situation was highlighted by the first release of UC 3-digit data on a national basis, the figures being based upon the ES–203 reports for 1942.

(c) Because of the impact of the war effort on particular areas and the consequences upon those areas in the case of an early peace there also had developed a great interest in the employment figures by areas. The BLS had two series in publication; indexes of factory employment based upon reported data and 1939 census data, largely unweighted; and rough estimates of total employment based to a very large extent upon Census of Population and WMC figures. The Bureau sought approval of a State and area program, to be operated through employment analysts in the various regional offices, and actually started an area pilot project in the Chicago regional office. However, the area program failed of accomplishment. At the present time there are no complete establishment statistics on an area basis.

4.3 BLS STATE PROGRAM 1945

4.3–1 Comparison With 1940 Project

So far as the sources of data were concerned and the general methods to be used in estimating employment, there was no difference between the 1940 and the 1945 State projects. The differences lay in the following aspects:

(a) LOCATION. The 1940 project was operated entirely in Washington; the 1945 project through eight regional offices and several Contract State offices, with technical guidance coming from Washington.

(b) OBJECTIVES. The objective of the 1940 project was to secure nonagricultural employment totals and (perhaps) manufacturing totals. The 1945 project sought to obtain publishable estimates for all major industries, at least for all sizable 2-digit groups in manufacturing and for major industry divisions among nonmanufacturing.

(c) PROBLEMS. In the 1940 project all special problems were settled in a more or less abstract fashion, proceeding from a knowledge of national conditions. In the 1945 project, problems were reduced to a firm-by-firm level and consultation was had with any persons in the field who were in a position to speak definitely on the subject. In this way no summary total, whether of universe or sample, was accepted as reported without questions; but rather it was a basic requirement that large establishments be given individual attention.

4.4 BUREAU OF CENSUS EMPLOYMENT DATA

4.4–1 Labor Force Statistics

(a) CENSUS OF POPULATION

(1) The 1940 Census of Population is a summary of the inhabitants of the United States, its territories and possessions by geographical location and basic characteristics. A house-to-house enumeration of all persons was made at their permanent homes or lodging places. The count of employed persons covers all persons at work or holding a job during the week of March 24–30, 1940 and includes self-employed persons, unpaid family workers and all wage and salary workers, whereas BLS estimates of nonagricultural employment are confined to wage and salary workers other than domestic servants reported by employers as receiving pay during the pay-roll period ending nearest the 15th of the month. In the population census, each person at work is counted only once and included in the area where he resides, whereas establishments report employees for the area in which the plant where they are employed is located. The latter may include some duplication in the count of workers because of dual job holding or labor turnover during the pay-roll period. Establishment reports also contain data regarding pay rolls and activity which permit more accurate classifications of employment in the nonagricultural industries located in a specific area than the Census of Population. Labor force data from population surveys are preferable for analyses of the inhabitants of an area according to their personal, employment, and occupational characteristics. They may commute to another area where the plants in which they are employed are located.

(2) Volume I of the Census of Population presents the number of inhabitants of the United States as of April 1, 1940 for States, counties, cities, other urban places arranged in groups according to size, metropolitan districts, and incorporated districts having from 1,000 to 2,500 inhabitants. A series of State bulletins, "Population, First Series, Number of Inhabitants" contains summaries of the population by counties and minor civil divisions (townships, districts, precincts, etc.), with separate figures for cities, towns, villages, and other incorporated places, for wards of incorporated places of 5,000 or more, and for metropolitan districts and census tracts. Informal population counts for some unincorporated places are available. Decennial increases and population densities since 1790 are shown for the continental United States and for those individual States for the periods during which they have been included within the national legal boundaries.

(3) For the purpose of the 1940 Census of Population, *urban areas* consist of the following three types:

Cities and other incorporated places having 2,500 inhabitants or more.

Towns or townships in New Hampshire, Massachusetts, and Rhode Island in which there is a village or thickly settled area with a population of more than 2,500 and comprising, either by itself or when combined with other villages within the same town, more than 50 percent of the total population of the town.

Townships and other political subdivisions (not incorporated as municipalities, nor containing any areas so incorporated) with a population of 10,000 or more and a population density of 1,000 or more per square mile.

(4) The *rural population* consists of two segments—rural-farm and rural-nonfarm.

(5) A *metropolitan district* is not confined to any political unit. It is an area including all thickly settled territory in and around a city or group of cities. All cities with a population of 50,000 or more are included in these districts. In general, they include a central city or cities and all adjacent and contiguous minor civil divisions or incorporated places having a population density of 150 or more per square mile They are more or less integrated areas with common economic, social, and often administrative interests.

(6) A *census tract* is a small subdivision of a large city or its adjacent area with a population

4.4–1 Labor Force Statistics—Continued

of fairly homogeneous characteristics established for statistical and local administrative purposes. These tracts include for the most part approximately equal numbers of inhabitants or equal areas. For the 1940 Census of Population, there were 10,461 census tracts, in or adjacent to 60 cities, including all cities with a population of 250,000 or more and a few smaller ones.

(7) Volume II presents the characteristics of the population of each State by counties and townships or other minor civil divisions for all incorporated places with a population of 1,000 or more, wards of cities of 50,000 or more, and metropolitan districts. The characteristics include urban, rural-nonfarm and rural-farm residence, sex, age, race, nativity, citizenship, country of birth, school attendance, educational status, employment status, class of work, major occupation group, and major industry group. Individual State bulletins "Population, Second Series, Characteristics of the Population" are available.

(8) Industry statistics are shown only for employed workers, 14 years old and over (except on public emergency work), for States, principal metropolitan districts, counties, and urban places with 10,000 inhabitants or more. The industry classification system approved by a Committee on Industrial Classification composed of representatives of various government agencies consists of 132 industry titles combined into industry groups. Some of the major industry groups are more inclusive than the corresponding major occupational groups. The industry classification "Government (not elsewhere classified)" includes only those persons engaged in activities that are peculiarly governmental functions. Government employees engaged in activities that are commonly performed by employees in private industry are included in the industry classification in which their activities fall. The total number of persons employed by governmental agencies are found in tables 2 and 78 of volume III. The industry group "Domestic Service" includes in addition to those persons in the occupation group "domestic service workers" persons employed by private families as practical nurse, chauffeur, and gardener. The industry group "Agriculture" is more inclusive than the two major occupational groups "farmers and farm managers" and "farm laborers and foremen." All persons employed on farms, such as truck and tractor drivers, mechanics, and repairmen, and bookkeepers; persons employed in cotton ginning, landscape gardening, greenhouses, and irrigation, and spraying services on farms are included.

(9) The following factors limit comparison of the 1940 data with those of the earlier censuses:

Revisions of occupational and industrial classification systems.

The 1940 Census measures employment and unemployment by classifying the population according to activity during a specified week. The gainful worker data in the censuses prior to 1940 were based upon a concept of occupational status without regard to activity at any particular time.

(10) The most important types of persons for whom the 1940 labor force classification differs from the gainful worker classification in previous censuses are as follows:

Types of workers	*Census*	
	1940	*Prior to 1940*
Seasonal workers neither working nor seeking work at time of census.	Excluded	Included
Persons engaged in public emergency work.	Excluded	Included
New workers without previous work experience seeking work during previous week.	Included	Excluded
Retired and disabled persons unable to work and no longer seeking work.	Excluded	Included
Inmates of penal and mental institutions and homes for aged, infirm, and needy, regardless of their activity during census week.	Excluded	Included if they performed regular work

(11) The 1940 labor force figures are restricted to persons 14 years old and over. The gainful workers in earlier censuses included persons 10 years old and over.

4.4–1 Labor Force Statistics—Continued

(12) Volume III presents the basic characteristics of the labor force. Employment status, class of worker, occupation, industry, wage or salary income in 1939, hours worked during the week of March 24 to 30, 1940, number of months worked in 1939, duration of unemployment, and personal characteristics for broad regions, for each State, and for each city of 250,000 or more are included. State bulletins "Population, Third Series, The Labor Force" contain detailed industry data relating to employed persons (except on public emergency work) and to experienced workers seeking work for States, cities with a population of 100,000 or more, and on some of the subjects for urban and rural areas of States. Data for employed persons and for experienced workers are often shown separately as the occupation and industry questions for employed persons referred to the current job in the census week, whereas those for experienced workers seeking work referred to the last job of 1 month or more. Workers are divided into three classes:

Wage or salary workers consisting of all persons who, in their current or last job worked for wages or salaries (in cash or kind, such as tips and lodging), including employees working for commissions, salaried business managers, corporation executives and government officials. This group is subdivided into private wage or salary workers and government workers.

Employers and *own account workers* operating their own business enterprises in their current or latest work, such as owner-operators of large stores and manufacturing establishments, small merchants, independent craftsmen, farmers, professional men, and peddlers.

Unpaid family workers assisting without pay on farms or in stores or other enterprises operated by other members of their families.

(13) The following factors restrict the comparison of these data with those obtained from reports of employers:

In a house-to-house enumeration, the housewife is requested to supply the information for each member of the household. She is not always familiar with the occupational and industry characteristics of the job of each member of the household.

The enumerators often lacked the technical knowledge needed to distinguish between closely related occupations and industries and to select information most essential for accurate classification.

Although the enumerators were instructed to show the major industrial activity of an establishment where a person is employed, it was not always possible to obtain this information from the housewife and many persons employed in a department or unit incidental to the main work of an establishment were classified according to the subsidiary activity. Such relationships are more easily identified from establishment reports.

Persons having two or more jobs during the reporting week were classified according to the industry and occupation in which they worked the greater number of hours during this period. These persons were counted twice in the establishment reports.

(14) All persons 14 years of age and over (except inmates of specified institutions) were requested to report the amount of money wages or salary up to and including $5,000 received during 1939, and whether they had received $50 or more from other than money wages or salaries during that period. Wage or salary income in the 1940 census is defined as compensation for work or services performed as employees, including commissions, tips, piecerate payments, bonuses, etc. Receipts from business profits, fees, travel reimbursements, sale of crops, unemployment compensation, compensation in forms other than money, such as meals, lodging, clothing, fuel, etc., are not included. The difference in the timing of the wage and salary income questions (referring to the calendar year 1939), and the employment status questions (referring to the week March 24–30, 1940) may result in some distortion of income distributions by occupation in an area where substantial shifts occurred in particular occupations. There are also two important

4.4–1 Labor Force Statistics—Continued

factors which may have caused inaccuracies in reporting incomes:

Inaccurate amounts reported by persons receiving compensation in many separate installments or irregular amounts.

Housewives or other informants making the reports may not have known the precise amount of income received by each member of the household.

(15) The question on hours of work relates to the week of March 24–30 1940, in private or nonemergency Government work. Additional information regarding the personal and industrial characteristics of the labor force in each industry is found in the "Labor Force (Sample Statistics)" series. The following bulletins of this series contain additional information regarding the industrial characteristics of the labor force:

Occupational Characteristics. Occupational structure of industries with a detailed occupation classification of employed workers in each industry for the United States.

Industrial Characteristics. Industrial characteristics of the labor force, by citizenship status and other characteristics for the United States and by regions.

Usual Occupation as contrasted with current occupation of March 24–30, 1940, by regions, States, and large cities.

Wage or Salary Income in 1939 for wage or salary workers by months worked in 1939, industry, age, and other characteristics for the United States, geographic division, States, and large cities.

Employment and Family Characteristics of Women for the United States, regions, and metropolitan districts of 100,000 or more.

These reports are derived from samples of the returns of the 1940 Census of Population. Two lines were provided at the bottom of each population schedule for obtaining certain supplemental information regarding the two persons whose names fell on two designated lines. Five types of schedules were used with different pairs of lines designated for the supplementary questions. The additional industrial data obtained indicate whether the person has a Federal Social Security number, on what part of his 1939 wages or salary OASI or Railroad Retirement Tax deductions were made, his usual occupation, usual industry, and usual class of worker. The *usual occupation* referred to the one at which he worked longest and at least for a period of 1 month during the past 10 years and at which he is still physically able to work.

(16) Volume IV and the fourth series of population bulletins for the States present employment status of persons 14 years old and over during the period March 24–30, 1940 by more detailed age classes, and a classification of employed workers 14 to 24 years old by school attendance for States and cities of 100,000 or more.

(b) MONTHLY REPORT ON THE LABOR FORCE

(1) During the period 1937–39 the Works Progress Administration made surveys of several local labor markets and from them developed a schedule for a series of field surveys which were begun several months prior to March 1940—the first date for which monthly reports of unemployment were published. The results of these experiments and other studies made of unemployment during the 1930's were helpful to the Bureau of the Census in determining the type of labor force data to be collected for the 1940 Census of Population. The monthly reports of the Labor Force represented largely a continuation of the old WPA series. The labor force is defined as consisting of two classes of people: (1) the employed and (2) the unemployed. These classifications are determined by the activity of an individual during the census week, which for the Monthly Report on Labor Force is the calendar week which contains the 8th day of the month.

(2) The Monthly Report of the Labor Force presents current basic labor force, employment and unemployment statistics of the civilian noninstitutional population of the United States. It is based upon a monthly sample of 68 areas comprising 123 counties located in 43 States. A typical sample area consists of at least one county and includes both urban and rural residents of high and low economic level with a broad representation of occupations and industries in the stratum which it represents. There are 25,000 households in the sample.

4.4–1 Labor Force Statistics—Continued

Each sample household is interviewed for 6 or 7 successive months and then replaced by another to avoid making the interviews burdensome to the household through too long a period. Concept of measurement and classification of the labor force and interviewing procedures were the same as those used in the 1940 Census of Population up to July 1945. The replacement of sample households is staggered over a period of several months. Information is obtained regarding the personal characteristics of all persons in the household and the employment status of all persons 14 years of age and over. Supplementary questions are asked on occasion regarding the labor markets status at an earlier date, persons attending school and holding jobs, persons holding two or more jobs, etc. The sample was selected for the purpose of deriving national estimates.

(3) In July 1945, a new schedule and a new interview procedure were introduced to obtain an improved estimate of all persons in the labor force. These persons who had formerly described themselves as students, housewives, retired persons, etc., were now also classified according to whether in addition to their major activity they did any work, had a job, or looked for work during the census week.

(4) Limitations for comparing MRLF reports with BLS estimates of employment are similar to those for comparing the 1940 Census of Population with BLS estimates. Persons holding more than one job during the survey week are counted only once in the MRLF series, but in the establishment series they are counted in each job they held during the pay roll period reported. Thus, both labor turnover and dual job-holding affect the level of the establishment series. Furthermore, the MRLF includes persons having a job but not at work, while the BLS series includes such persons only if they are receiving pay while not at work. The published MRLF estimates of "total nonagricultural employment" differ from the BLS published series for "employees in nonagricultural establishments" also in that the former includes domestic servants, self-employed, proprietors, and unpaid family workers.

(5) In addition to those conceptual differences, there are differences which arise because of the differences in approach, and these are impossible to reconcile in terms of presently available information. The MRLF series is not now available for States, so no problem of reconciliation with establishment estimates at the State level now exists.

(6) The Bureau of the Census has, however, conducted sample population surveys of a number of large cities and metropolitan districts covering a "survey week" falling somewhere during the period October 1946–April 1947. These reports refer to the employment status of the inhabitants of an area, which introduces one additional factor of major importance in making comparisons with employment estimates derived from establishment reports.

4.4–2 Establishment Statistics—Census of Manufactures

(a) GENERAL. The 1939 Census of Manufactures is a valuable source for benchmark data. It is a part of the 16th Decennial Census and covers the 48 States and the District of Columbia. It represents a year's operation for all establishments except those which began or discontinued business within the reporting period. In general, the reporting period refers to the calendar year 1939. In some cases, however, the reporting period refers to a fiscal year which differs from the calendar year. Manufacturing establishments with products valued at $2,000 or more in Alaska, Hawaii, and Puerto Rico were also canvassed with simplified questionnaires. However, the Bureau of Labor Statistics is primarily concerned with statistical data relating to employment in the continental United States.

(b) METHODS AND COVERAGE

(1) *Canvass.* The questionnaires for the 1939 census were distributed and the returns collected by field enumerators who were sworn employees of the Bureau. Other Federal agencies, such as Forest Service and Agricultural Marketing Service of the Department of Agriculture, cooperated with the Bureau in collecting and editing the schedules. In a few instances the canvass was conducted by a State agency, as in Massachusetts.

4.4–2 Establishment Statistics—Census of Manufactures—Continued

(2) *Coverage.* In comparison with previous censuses, the 1939 inquiries regarding personnel were expanded to include a break-down by sex and separate data for the employees of manufacturing industries who are engaged in distribution, construction, and other activities.

(3) *Confidential Data.* Inasmuch as the Bureau of the Census is prohibited by law from disclosing data for individual establishments, separate figures for an industry or State represented by fewer than three establishments are not published. Separate figures, except those for personnel, are also not published if one or more establishments produce a large proportion of the combined output of three or more in a particular industry or State. In these cases, the figures are included in "Other Industries" or "Other States".

(4) *Contents.* Volume I of the 1939 Census of Manufactures is a general report of statistical data on special subjects such as employment, size of establishments, type of organization, inventories and expenditures for plant and equipment. Volume II contains detailed reports for the 446 industries covered by the census. Volume III consists of detailed reports for the 48 States, District of Columbia, Alaska, Hawaii, and Puerto Rico by industrial areas, counties, and cities with population of 10,000 or more. Complete and detailed statistics for individual industries for States are available in pamphlet form.

(5) *Definitions.* The term *industrial area* comprises a county in which an important manufacturing city is located and any adjoining county or counties important to the manufacturing industry. There are 33 of these areas, each of which had at least 40,000 factory wage earners in 1929. The *metropolitan district*, as established for population-census purposes, includes in addition to the central city or cities all adjacent and contiguous minor civil divisions having a density of at least 150 inhabitants per square mile. Each *industrial area* comprises one or more counties. The *metropolitan district* may or may not include the entire county or counties.

(6) *Scope.* Changes which have been made in the scope of the Census of Manufactures between 1929 and 1939 are listed below.

Changes in the scope of the Census of Manufactures between 1929 and 1939

1929 Census	*1939 Census*
1. "Car and general construction and repairs, electric-railroad repair shops."	1 and 2. Omitted after 1935. Number and value of new cars and of locomotives built in railroad repair shops are included in the production figures for "Electric and steam railroad cars" and for "Locomotives built", respectively.
2. "Car and general construction and repairs, steam-railroad repair shops."	
3. "Coffee and spice, roasting and grinding."	3. Data not collected after 1931.
4. "Peanuts, walnuts, and other nuts, processed or shelled."	4. Data not collected after 1931.
5. "Flax and hemp, dressed."	5. Abandoned as a manufacturing industry after 1929 census.
6. "Gas manufactured, illuminating and heating."	6. Not covered after 1935 as it was not practicable to obtain figures which did not include data for the distribution and mixing of gas.
7. "Motion pictures, not including projection in theaters."	7. Canvassed separately since 1929 but the data have not been included in the totals for manufacturing industries.

4.4–2 Establishment Statistics—Census of Manufactures—Continued

(7) *Establishments Covered.* Data were not requested from establishments manufacturing during the census year products valued at less than $5,000. Some of the other types of establishments not included in the 1939 census are as follows:

Those engaged principally in services for individual customers, such as repair shops; custom tailor shops manufacturing products valued at less than $100,000 within the census year; dressmaking and millinery shops, except large establishments manufacturing to fill special orders; small grain mills engaged exclusively in custom grinding.

Those engaged in construction industries.

Those engaged in so-called neighborhood industries and hand trades using little or no power machinery, such as carpentry, blacksmithing, harnessmaking, tinsmithing, etc.

Cotton gins.

Wholesale and retail stores incidentally manufacturing on a small scale.

Electric light and power plants used as public utilities.

Educational, eleemosynary, and penal institutions engaged in manufacturing. (Data for the manufacture of binder twine in penal institutions and of brooms in institutions for the blind were collected, but tabulated separately from private establishments making the same products.)

Government establishments, such as navy yards, arsenals, etc.

(c) INDUSTRY CLASSIFICATION

(1) *1939 Census as Source of Classification Information.* The 1939 census was the basic source of classification information for compiling the BLS State estimates for the period 1939–46. The census classification card file was available for checking purposes. Confidential data shown in other census records were also made accessible to a representative designated by the Bureau of Labor Statistics.

(2) *Census of Manufactures Classification System.* The Census of Manufactures classification of industries was developed by the Census Division of Manufactures in collaboration with the Committee on Standard Industrial Classification established by the Division of Statistical Standards of the Bureau of the Budget (formerly the Central Statistical Board). It is comparable with the Standard Industrial Classification on a 3-digit or "industry group" basis. However, in some cases it subdivides the standard classification industries, and sometimes it combines the standard industries.

(3) *Classification of Establishments.* The term "establishment" in the 1939 census generally refers to a single plant or factory.[4] In a few cases, separate returns were obtained for different lines of activity carried on in the same plant. These activities were assigned to different industry classifications—resulting in a single plant being counted as two or more establishments. The industry classification for an individual establishment is determined by its product or group of products of chief value.[5] This may have resulted in overrating the importance of certain industries and underrating the importance of others inasmuch as the primary products of an industry may be made in considerable quantities as secondary products in other industries. Data for personnel, wages, cost of materials, etc., for the total output of an establishment are included in the industry to which its primary product belongs. For instance, if wooden or part wooden cigar boxes constitute 75 percent of the output of an establishment and other wooden boxes 25 percent, all of the personnel, wages, cost of materials, etc., are allocated to Industry 653, "Cigar boxes: wooden, part wooden." However the value of the secondary products not normally belonging to an industry offsets to some extent the value of

[4] In censuses prior to that for 1937 one return was usually counted as representing one establishment, although it might cover two or more plants operated under the same management and located in the same city, or in the same county but in different municipalities or unincorporated places having fewer than 10,000 inhabitants. For 1937 and 1939, the number of establishments represented by a return was determined by the respondent's answer to the question "How many plants does this report cover?"—16th Census of the United States, 1940: Manufactures 1939, vol. I, General Explanations, chapter 1, sec. 5.

[5] The value of products refers to the selling value, at the factory or plant, of all commodities produced during the census year. All or only a part of this value may have been created within the industry.

4.4–2 Establishment Statistics—Census of Manufactures—Continued

commodities normally belonging to it but made as secondary products by establishments engaged primarily in other lines of manufacture.

The value of secondary products made in an industry is published in Volume II. In a few industries, such as wholesale meat packing, blast furnaces and newspaper printing, establishments are classified in the particular industry if they are engaged in any degree in the processes classified in that industry.[6]

(d) BLS USE OF CENSUS EMPLOYMENT DATA. The BLS 1939 national estimates for production workers, in all manufacturing and the major industry groups, were prepared by dividing an original set of estimates adjusted to the 1939 Census of Manufactures by the ratio of the January 1940 estimates belonging to this original set to January 1940 estimates adjusted to a UC benchmark level for the first half of 1940. The UC benchmarks were reduced to production worker equivalents by the use of ratios of wage earners to all employees derived from the 1939 Census of Manufactures data for the corresponding groups. Most of the production worker estimates for 1939 for individual industries have also been adjusted in a similar manner.

(e) SIZE-OF-ESTABLISHMENT DATA. The statistical data in chapter 4, volume 1 of the Census of Manufactures classify establishments according to the average number of wage earners employed and also according to the gross value of products. These data are useful primarily for determining the approximate ratio existing between the numbers of wage earners employed in small and large establishments by 2-, 3-, or 4-digit industry on a national basis, or the approximate ratio between the numbers of wage earners employed in all small and large manufacturing industries combined in a geographic division, State, or industrial area.

(f) SALARIES AND WAGES

(1) The 1939 census pay roll data for wage earners were used by BLS as benchmark data. The basic weekly pay roll was computed by dividing the annual totals by 52. When the 1939 wage earner employment series was adjusted to the level of 1940 UC data as described in (d) above, the pay roll benchmarks were adjusted by the same proportion as the change in the corresponding wage earner employment figures.

(2) Monthly pay roll data for production and related employees ("wage earners" up to 1945) are requested on BLS 790. The data include pay rolls *before* deductions are made for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues; pay for sick leave, holidays, and vacations taken during the current pay period is included. Deductions are made for damaged work. Cash payments for vacations not taken, retroactive pay not earned during the current pay period, payments in kind (free rent, fuel, etc.), and bonuses not earned and paid regularly each pay period are not included. (The census data on wage earner compensation do include irregular bonuses.)

(g) MAN HOURS. Man-hour statistics for 171 selected industries, Census of Manufactures 1939, are available in the Washington office if statistical data showing the aggregate man-hours in 1939 for wage earners by months and by manufacturing industries are desired. This publication also shows average hourly earnings and data on hours and earnings by region.

4.5 SOCIAL SECURITY ADMINISTRATION

4.5–1 General Scope of BES and BOASI Data

Two agencies in the SSA supply basic data for establishing benchmarks for BLS estimates of employment in the various States. The State Unemployment Compensation reports of employment and pay rolls to the Bureau of Employment Security supplemented with the Bureau of Old-Age and Survivors Insurance reports cover a very large percent of the persons

[6] See 16th Census of the United States, 1940: Industry Classifications for the Census of Manufactures 1939, p. 1, par. 3.

4.5–1 General Scope of BES and BOASI Data—Continued

in each of the States in industrial and commercial employment.

Certain types of services are excluded from coverage by the Federal Insurance Contributions Act, the Federal Unemployment Tax Act, and the State unemployment compensation laws. The most important exclusions under the *1935 Social Security Act* relate to agricultural labor; domestic service; casual labor; maritime employment; services for a State or the Federal Government and, in some circumstances, for their instrumentalities; self-employment; family employment; service for a foreign government; student nurses and internes; newsboys; and services performed for religious, educational, and charitable organizations. The Federal Unemployment Tax Act covers employers of eight or more persons in at least 20 weeks in a calendar year. The State laws vary as to the minimum size of firms covered and are not substantially uniform with respect to the nature of the work. The Old-Age and Survivors Insurance program covers all employers of one or more persons. Employees covered by the Railroad Retirement Act have never been included in the OASI program, and in the State UC programs only up to July 1, 1939, the effective date of the Railroad Unemployment Insurance Act.

4.6 BOASI PROGRAM

4.6–1 General

The OASI program is conducted on a national basis. Employer and employee contributions are collected by the Bureau of Internal Revenue. In 1939 the OASI program was expanded to include employees aged 65 years and over, certain maritime employment, and employment by certain government instrumentalities, national banks, and State member banks.

4.6–2 Exemptions From the OASI Program Under the 1939 Amendments to the Social Security Act of 1935—General

(a) *According to nature of the service rendered*, such as agricultural labor, domestic service, casual labor, and certain kinds of fishing operations.

(b) *According to character of employing entity*, such as State, Federal, and foreign governments and their instrumentalities; charitable, religious, or educational institutions; "employees" subject to provisions of Railroad Retirement Act; certain members of an employer's immediate family.

(c) *Miscellaneous group*, such as certain services performed for fraternal organizations and of services performed by students in the employ of a school, college, or university; by student nurses and internes in the employ of hospitals; by newsboys under the age of 18 years; service for beneficiary associations, and services or organizations exempt from Federal income tax if the remuneration is not more than $45 in a calendar year, exclusive of room, board, and tuition.

4.6–3 Exemptions—Nature of Service Rendered

(a) Exclusion of *agricultural labor*, *domestic service*, and *family businesses* was primarily due to the difficulties which would have been encountered in the collection and verification of the tax. The 1935 Social Security Act defined *agricultural labor* as services performed by an employee of a farmer and carried on as incidental to ordinary farming operations as distinguished from manufacturing or commercial operations.

(b) *Domestic service* excepted from the OASI program by the 1939 amendments refers in general to services in and around the home. *Home* is defined as a fixed place of abode of an individual or family. Under this exemption are included services performed in a private home, local college club, or chapter of a college fraternity or sorority (primarily a student organization furnishing living quarters).

(c) *Casual labor* is defined as occasional, accidental, or irregular service which is not in

4.6–3 Exemptions—Nature of Service Rendered—Continued

the course of the employer's trade or business, such as carpenters, painters, bricklayers, paperhangers, etc., building, remodeling or repairing a home, summer cottage, or garage for the employer's own occupancy and use; and services for political candidates in connection with their campaigns. Chauffeurs, pall bearers and singers for undertakers, and services performed for a corporation are not considered to be casual labor. If the services were performed on more than 10 days within a period of two consecutive calendar months or the total time worked by all individuals on the project in question exceeded 200 hours, they do not fall within the casual labor group.

(d) The Social Security Act of 1935 excluding Maritime Service from the OASI program defined it as "service performed as an officer or member of the crew of a vessel on the navigable waters of the United States." Effective January 1, 1940, maritime employers became subject to OASI tax. Covered services include those performed "on or in connection with an American vessel under a contract of service which is entered into within the United States or during the performance of which the vessel touches at a port in the United States, if the employee is employed on and in connection with such vessel when outside the United States." On March 24, 1943, services performed by seamen employed by or through the War Shipping Administration on vessels of this or a foreign country were brought within the coverage of the OASI program retroactive to September 30, 1941, and including services performed prior to February 11, 1942, by seamen employed by or through the U. S. Maritime Commission.

4.6–4 Exemptions—Character of Employing Entity & Miscellaneous

(a) Exemption from the OASI program of *services performed in the employ of the United States or of an instrumentality of the United States* as provided in the Social Security Act of 1935 presented the problem of interpreting the term "instrumentality of the United States". Under the amendments of 1939 to the Social Security Act, the concept of government instrumentalities was restricted to include only those which are wholly owned by the United States or are exempt from tax imposed by sections 1410 and 1600 of the Internal Revenue Code by virtue of any other provisions of the law. This brought national banks, State bank members of the Federal Reserve System, and State- and Federal-chartered members of the Federal Home Loan Bank under OASI coverage.

(b) The exemption of employees of *religious, charitable, and educational* organizations is based upon the character of the organization for which services are performed. Usually an organization must meet three tests to fall within this classification: (1) It must be organized and operated exclusively for one or more of the specified purposes; (2) its net income must not inure in whole or in part to the benefit of private share holders or individuals; and (3) it must not in any substantial part of its activities attempt to influence legislation by propaganda or otherwise.

4.6–5 Taxable Wages

Prior to 1940 both the employer and employee were subject to tax for the first $3,000 of wages paid each year by an employer to an employee. Beginning with 1940, only the first $3,000 received by an employee was subject to taxation. In those cases where more than one employer contributed to the total of an amount over $3,000, the amount paid by each was taxed up to $3,000, but the employee was entitled to a refund of taxes.

4.6–6 Employer Reports

(a) Each employer who has one or more employees with taxable wages in any quarter must file a detailed report (SS–1a) of employment and taxable pay roll with the United States Collector of Internal Revenue for his district on or before the last date of the first month following the close of the quarter. This report shows the name and account number of each employee to whom wages were paid, the number of such employees during the quarter (wage items), the amount of taxable wages paid to each employee, and the State in which

4.6–6 Employer Reports—Continued

each individual worker is employed as well as the number of taxable employees on the pay roll of the company during the pay period ending nearest the 15th of the last month of the quarter and the total taxable wages paid during the quarter. Each reporting employer is identified by an *Employer Identification Number* and each separate report is assigned a 4-digit industry code on the basis of its principal activity or product and a geographic code (State and county) on the basis of the location of the business.

(b) The number of employees for the pay roll period ending nearest the 15th of the last month of the quarter is reported for the entire firm and is not requested either by establishment or by State. Since 1943, however, a large proportion of multi-establishment employers have been reporting establishment break-downs for employment and taxable pay rolls. Employment in most of the other multi-establishment firms is distributed by State and industry by statistical devices after initial tabulation but before final tabulation.

(c) These data are transferred by the Bureau of Internal Revenue to the BOASI, where they are used to prepare statistical tabulations of various kinds. The tabulations of employment and pay rolls made from the employer reports are of greatest importance for employment statistics. In the State program, BOASI data have been used chiefly to obtain an estimate of employment in firms not subject to the unemployment compensation program because they had fewer than the number of employees required to make them liable under the act.

4.6–7 Employer Informational Schedules—"Refiling" Projects

The BOASI canvassed 1.8 million employers to obtain current industry information in its "refiling" project of 1942. Another "refiling" project was carried out in 1946. The latter project was conducted primarily to obtain current information for all manufacturing industries except those in which changes in activity were unlikely to occur during the post-war reconversion period (e. g., job printing and tobacco manufacturing). Approximately 150,000 manufacturers were surveyed.

A "rotational refiling" plan has been instituted by BOASI and BES whereby "those industries (both manufacturing and nonmanufacturing) which are subject to the greatest change in industrial activity will be resurveyed and reclassified at regular intervals. Some industries would be recanvassed approximately every year, some at 2-year intervals, and others at longer intervals." [1]

4.7 BUREAU OF EMPLOYMENT SECURITY AND STATE UC AGENCIES' EMPLOYMENT DATA

4.7–1 Nature of Program

(a) Data for determining benchmarks for BLS estimates of employment in most industries are obtained from employment and pay rolls reported to the Bureau of Employment Security by the State unemployment compensation agencies. The Federal-State unemployment compensation program, established in accordance with the Social Security Act, and the special Federal system, administered under the Railroad Unemployment Act, protect the major part of the population engaged in industrial and commercial employment in the United States against certain wage losses occasioned by unemployment. On January 1, 1936, the Federal pay roll tax under title IX of the Social Security Act was first levied on employers of eight or more persons in specified industries with credit allowed for contributions paid to unemployment funds in those States in which unemployment compensation laws had been approved by the Social Security Board.

(b) Unemployment compensation is primarily a State responsibility. The Federal government pays the administrative costs of the program and allows a tax credit to employers in

[1] From attachment to Research and Statistics Letter No. 123, BES.

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4.7–1 Nature of Program—Continued

the State if the State law meets certain minimum requirements which are set up to distinguish between the unemployment compensation program and a relief program, to protect finances and administration, and to maintain work standards.[8] The individual State determines the groups to be protected and those to be excluded, the benefit rates, the duration of the benefits, the conditions under which employed workers may receive benefits, and the administrative organization.

4.7–2 Coverage Provisions

(a) The State unemployment compensation laws follow a general pattern. However, there is considerable variation among the States with respect to the exclusion of small firms from coverage and with respect to specific provisions for benefits to unemployed workers.

(b) Of the 49 State unemployment compensation laws (including the District of Columbia, but excluding Alaska and Hawaii), 19 limit coverage to firms with 8 employees for 20 weeks; 2 others contain that limitation as an alternative either to a large quarterly pay roll or to a substantial number of workers in some one week, while a third requires 8 employees, but for a shorter period of time. The other 27 laws cover smaller firms. There are now 14 laws which cover employers of one or more persons, although only 4 of them apply without any restrictions as to number of workers, length of employment, or size of pay roll.

In all but 5 States an employer becoming liable at any time during a calendar year is retroactively subject to the unemployment tax back to the beginning of the year. In all but 2 States an employer's liability is continued throughout a full calendar year after his operations have become so small as to render him otherwise not liable. Employers also have the privilege of electing coverage if they do not employ the minimum number of persons.

Changes in the State coverage provisions from 1937 on are shown in the issues of the *Social Security Yearbook*, in periodic supplements to *Employment Security Activities*, and in *Comparison of State Unemployment Compensation Laws*, all SSA publications.

(c) *Types of industries* covered by the State unemployment compensation laws are in general similar to those subject to the Old Age and Survivors Insurance program. Some of the major differences in coverage are as follows:

(1) Prior to July 1, 1939, State unemployment compensation laws included employment by interstate railroads and allied companies which were covered by the Railroad Retirement Board instead of the OASI. Unemployment compensation for these groups of employees are now covered by the Railroad Unemployment Insurance Act.[9]

(2) Effective January 1, 1940, certain types of maritime service became subject to the OASI tax but not to the Federal unemployment tax. Effective September 30, 1941, services performed by seamen employed by or through the War Shipping Administration on vessels of this or a foreign country were brought within the coverage of the OASI program. Services performed prior to February 11, 1942 by seamen employed by or through the U. S. Maritime Commission were also included.

(3) Although not all State unemployment compensation laws specifically exempted maritime service, they usually had provisions relating to the determination of the place of employment, which excluded most of the coastwise, intercoastal, and foreign commerce. During the war period it was estimated that approximately 85 percent of the deep-sea shipping employment was in the employ of the War Shipping Administration which also excluded them from unemployment insurance benefits by the exclusion of Federal Government employment.

[8] Title IX, later the Federal Unemployment Tax Act, provided for a tax at the rate of 1 percent of pay rolls for 1936, 2 percent for 1937, and 3 percent for 1938 and subsequent years. Only 10 percent is payable to Federal Government if contributions at least equal to the other 90 percent are paid into an approved State unemployment compensation fund, or if the State waives this payment in whole or in part under the provisions of an approved "experience rating" system.

[9] Employers covered by the Railroad Retirement and Railroad Unemployment Insurance Acts are rail carriers, certain carrier affiliates, railroad associations, and railway labor organizations.

4.7–2 Coverage Provisions

(4) During 1945, five States (Iowa, New Jersey, Ohio, Texas, and West Virginia) repealed the exclusion of maritime services and seven States (Alabama, Georgia, Illinois, Oregon, Pennsylvania, Texas, and Washington) amended existing exclusions. As of July 1, 1946, private maritime employment was covered under almost all State laws. A Federal act has been passed, effective January 1, 1948, which changes the status of maritime service by designating the State from which a vessel operates as the State in which the members of a crew are employed and also by giving crew members the same status as shore workers for Social Security purposes.

(5) Other types of industries excluded from the OASI program have been covered by the unemployment compensation laws of the individual States. New York from the beginning has covered domestic workers in homes with four or more domestics; Wisconsin has covered some State and local government employees; Washington has covered employees of State public utility districts; the hourly rated workers of the Bonneville Power Administration, a Federal instrumentality, are also covered under the Washington UC system.[10] In 1945, Hawaii and in 1947, Tennessee extended coverage to nonprofit organizations, excluding only ministers and members of religious orders.

4.7–3 Employer Reports to UC Agencies

(a) NATURE OF EMPLOYMENT INFORMATION

(1) All subject employers are required to make quarterly contribution reports to the State agencies within one month from the close of each calendar quarter showing the total amount of taxable wages paid or payable during the quarter; the total amount for the quarter not taxable (amounts in excess of the first $3,000 paid to an employee during the year); the number of covered workers as of the pay period ending nearest the 15th of each month (prior to January 1945, as of the last pay period ending within each month of the quarter); and information on the amount of contributions. Multi-establishment employers are expected to distribute employment and wage totals by industry and/or area. This employer's contribution report is the source from which all UC employment data are compiled.

(2) Wages subject to taxation in most States include all remuneration paid or payable in covered employment, including the value of wages in kind, commissions, bonuses, and in about half the laws, tips and gratuities. Employer contributions under private plans for benefits to employees in the event of retirement, accident, sickness, medical expenses, hospital expenses, or death; voluntary dismissal payments; and social security taxes paid by the employer without deduction from the wages of employees are excluded in nearly all of the State laws.

(b) INDUSTRIAL CLASSIFICATION

(1) All employers are required to submit a report showing the name and address of the employer, number of establishments and employees, and a full description of the nature of business in each establishment. This enables the State to classify employers and their establishments by industry and area. The SSA Industrial Classification Code was used for industry classification until the adoption of the new SIC code which is now used for clasifying manufacturing firms. Multi-unit employers with several establishments of the same character are required to submit only one report (unless the State requires area reporting; see (c)).

(2) *A multi-establishment employer* all of whose establishments are not classifiable in the same 3-digit industry group is required to submit separate reports, with some exceptions, for the establishments in each 3-digit industry. The exceptions arise under the leeway granted the State UC agencies by the BES. The States are required to follow a criterion *at least* as inclusive as the following in determining which multi-establishment employers should submit industry breakdowns and what the breakdowns should be:

"(Definitions: *Primary industry*—that 3-digit industry group in which the largest number of employer's workers in the State

[10] Congress specifically permitted the coverage of these employees under the State UC system.

4.7–3 Employer Reports to UC Agencies—Con.

are engaged. *Minor industry*—any 3-digit industry in which fewer than six of an employer's workers in the State are engaged. *Secondary industry*—any 3-digit industry other than primary or minor in which an employer's workers within the State are engaged.)" [11]

If a multi-establishment employer has a total of 50 or more covered workers in establishments classifiable in all of his secondary industries combined, he should be required to submit separate data for each of his secondary industries; *data relative to his minor industries, if any, need not be reported separately but may be classified under his primary industry.* A multi-establishment employer who has a total of less than 50 workers in his secondary industries need not submit an industry breakdown and all data relative to such an employer may be classified under his primary industry.

(3) One of the chief objectives of the BOASI 1942 and 1946 "refiling" projects was to coordinate the industrial coding of employment data collected by BOASI with those data collected by the UC State agencies. The UC 3-digit industry group code for any subject employer with six or more workers is now required to be identical with the first three digits assigned him by the BOASI.

(4) *"Establishments Engaged in More Than One Industrial Activity.* The employment and wages of a single establishment, or place of business, engaged in activities that fall into more than one industry group generally should be assigned only *one* industry code based upon its principal activity. However, in cases where the employer maintains separate pay roll records for each activity for which separate and distinct industry classifications have been provided in the coding manuals, State agencies are encouraged to treat each such activity, or unit, as a separate establishment for the purpose of coding and reporting of employment-and-wages data.

[11] Guide for State Employment Security Administration, pt. III, vol. 1.

"Ideally, when a single code is to be assigned to a multi-activity establishment, it should represent that activity which, throughout the year, will utilize the largest number of employee man-months; and, whenever accurate information of this type is available, the establishment code should be so determined. However, in general it is impractical to attempt to obtain from employers, on a liability or special nature-of-business form, an accurate statement of the number of employee man-months utilized during a year in each codable type of activity. The Bureau therefore recommends that for coding purposes State liability or nature-of-business survey forms request, for multi-activity manufacturing establishments, a statement of the gross annual value of each class of product produced and, for nonmanufacturing establishments, information similar to that requested in item 10 of the BOASI Form OAA–100.[12] Codes based on this type of information will seldom differ from those which would be assigned if man-month information were available." [13]

(5) *Changes in industrial classification codes* are made when there is available information that the current principal activity of the unit is not covered by the industrial code assigned to that unit and that the new activity will be the principal activity of the unit during the following 52-week period.

(6) There are three major categories of industrial classification changes:

Noneconomic code changes include all changes made because of previous erroneous coding or pursuant to a revision of the pertinent SSA or SIC coding manual. These code changes are reported individually to the Bureau of Employment Security on the supplemental report to ES–203 (see section 4.7–4) to be mailed on July 31, following the effective date of the change. These changes may be made effective in the records from which ES–202 (see section 4.7–5) and ES–203 are prepared [14] as of January of the following year, or, if they are discovered before July 31, at the option of the State they may be made retroactive, in the records from which ES–202 and ES–203 are prepared, to January 1 of the current year. In no case are they deferred beyond January following the year in which they were discovered.

[12] This is a form used by the BOASI in requesting activity and product information from employers. See "Refiling Project" in section 3.1–1 above.

[13] Guide for State Employment Security Administration, pt. III, vol. 1.

[14] See Guide for State Employment Security Administration, pt. III, vol. 1.

4.7–3 Employer Reports to UC Agencies—Con.

Small units and complete conversions include all employment-reporting units with less than 100 workers at the time of the reclassification (except noneconomic code changes) and larger units which have converted completely from one activity to another. There may be a substantially complete shutdown of production between the new and old activities or a period of less than a month during which both activities were being carried on simultaneously in substantial volume. These changes are made effective, in the records from which Forms ES–202 and ES–203 are prepared, as of the beginning of some month which has not yet been reported in columns III, IV, or V of Form ES–202. At the option of the State, all reclassifications of this type may be made effective as of the beginning of the calendar quarter.

Gradual conversions include all employment-reporting units having 100 or more workers which have gradually shifted from one principal activity to another or which must be assumed to have shifted gradually because of lack of sufficient information to classify the unit under either of the two groups mentioned above. These changes are always made effective, in the records from which Forms ES–202 and ES–203 are prepared, as of the beginning of some calendar quarter for which no ES–202 has been submitted.[15]

(c) GEOGRAPHIC CLASSIFICATION

(1) Area classification of employment data was recommended to the State agencies by the Bureau of Employment Security, especially for the use of the Federal war agencies in connection with manpower allocation problems. All States have assigned area codes to their reporting units, but there is considerable State-to-State variation in the extent which multi-area employers have been required to submit area breakdowns of their data to the State agency.

[15] Ibid.

(2) Area codes are usually set up to include an entire county or counties. Ordinarily, only a multi-area employer with a total of 50 or more covered workers in all of his secondary areas combined submits separate data for each secondary area. For this purpose, a *primary area* is "that area within the State where a multi-area employer has the largest amount of employment." A *minor area* is "any area in which the employer has fewer than six covered workers." A *secondary area* is "any other area in the State where any of the employer's workers are located." [16] Data for those workers performing services in more than one area within the State in the normal course of their duties are allocated to the area of the head office from which they operate. These area identifications are helpful in compiling employment and pay roll data for counties and industrial areas.

(3) In some States, there are a considerable number of employers who report all of their operations within a given industry within a State under a single State-wide code.

4.7–4 UC Agencies' Reports to BES—Annual

(a) TIMING AND DELINQUENCY

(1) All States are required to mail to BES in Washington an annual report, ES–203, on or before July 31 of the year, following the reporting period. At least all employers' reports received up to June 30 preceding the mailing date are included. U. S. totals are ordinarily not available before the end of the calendar year following the reporting period.

(b) CHARACTERISTICS

(1) State UC data of employment and pay rolls are obtained by establishment reporting. Changes made in the State laws regarding the size-of-firm and type-of-industry coverages from year-to-year and, to a limited extent, from month-to-month within a year impair direct comparisons of data for past years.

[16] See Guide for Employment Security Administration, pt. III, vol. 1.

4.7–4 UC Agencies' Reports to BES—Annual—Continued

(2) Although UC data provide an excellent source for preparing employment benchmarks these data are more satisfactory for benchmark purposes during certain periods of the year than others for the following reasons:

There are variations from quarter to quarter in the relative volume of delinquent reports.

States which do not make an employer liable unless he has employed a given number of workers in 20 different weeks in the calendar year will not cover until the following January employers who reach the required size after August 15th.

Through misunderstanding, some employers may not be including in their employment count workers who have already earned $3,000 within the year. This error would, of course, become more important during the later quarters of the year.

(3) Beginning with 1938 all State agencies have submitted to BES annual reports for the State and for each 2-digit industry group on the employment of covered workers in the last pay period of each month in the calendar year (commencing with January 1945, data are for pay period ending nearest the middle of the month) and the total wages paid or payable in each quarter, as well as information on contributions. Since 1942 employment and wage data submitted by the State agencies have been further subclassified into 402 "industry groups" each identified by a 3-digit code.

(c) CONTENTS

(1) ES–203 consists of two annual summaries of monthly employment, quarterly wages, and contributions. One has these items distributed by 2-digit major industry group and the other by 3-digit industry group.

(2) Effective January 1945, the number of covered workers reported each month on ES–203 and ES–202 refer to the number earning wages during the pay period ending nearest the 15th of the month instead of during the last pay period of the month. The entry reported by employers using more than one basis of reimbursement includes the total employees on each type of pay roll. R&S Letter No. 112 dated May 20, 1946 changes the definition for the number of covered workers to be reported on ES–203 and ES–202 from the number reported as "employed during the pay period" to the number reported as "earning wages during the pay period." This change was made for clarification to insure that workers out on strike during the mid-month pay period are excluded. All employed covered workers are supposed to be reported even though their wage contributions are no longer paid because their annual earnings may have already exceeded $3,000.

(3) Provision is made for reporting both *total amount of wages* paid or payable for services rendered in covered employment, and the *amount of wages subject to contributions* on the ES–202 and ES–203 reports.

(4) Contributions collected or due on taxable wages which are paid or payable by employers during the year, as well as voluntary employer contributions, are reported.

(5) Comments regarding unusual trends in employment and/or wages reported on ES–203 are attached to the letter of transmittal. These comments have been found to be very helpful in analyzing the employment data.

(6) Data reported for a 3-digit industry group including less than three employers are usually not published as there is a possibility of disclosing information regarding individual employers.

(7) Supplemental reports showing noneconomic changes in employment are submitted annually along with ES–203. These changes may be due to changes in statutory coverage, in code structures, in ownership (from public to private or vice versa), newly covered employers with 100 or more workers prior to the effective date of their liability, and employers with more than 100 workers but not liable for contributions because their operations within the State are not of sufficient duration to meet the coverage provisions. The data are listed on blank paper; month of change and amount of employment affected are given.

4.7–4 UC Agencies' Reports to BES—Annual—Continued

(8) The 1944 ES–203 classifies all employment and wage data under a single revised 3-digit industry code resulting from the BOASI 1942 "refiling" project. Special supplementary tabulations were submitted showing the December 1943 employment classified by previous and current 3-digit industry codes. No changes were included which had been reported by the State agencies supplementing the 1943 ES–203 or any ES–202. In connection with the 1946 "refiling" project, which involved code changes for the switch to SIC as well as for all the usual reasons, special tabulations to permit one to gauge the effect of the changes were again requested of the States.

4.7–5 UC Agencies' Reports to BES—Quarterly

(a) TIMING AND DELINQUENCY. The quarterly report, ES–202, is submitted to BES on or before the 15th of the fourth month following the calendar quarter it covers. The cut-off date for preparation of the report is scheduled as close as possible to the mailing date in order to include as many employers' reports as possible, and in any event to include at least 80 percent of the expected aggregate pay roll for the period covered. The State agencies are attempting to encourage prompt reporting of liable employers by penalizing delinquency.

(b) CHARACTERISTICS AND CONTENTS.

(1) Except where the alternative procedure noted in (c) (2) is used, the quarterly report, ES–202, shows trends in employment in identical reporting units between the first month of the preceding quarter and each month of the current quarter. Aggregate wages paid in identical reporting units are shown for the preceding and current quarters respectively. These data are used for deriving monthly estimates of employment prior to the receipt of ES–203. Employment and wages for ES–202 are obtained from contribution reports and/or supplemental statistical reports of *only* those employment units which, up to the closing date for the preparation of ES–202, have submitted reports for both the quarter to which this report relates and the preceding quarter. Direct comparisons of data on different forms ES–202 cannot be made as these reports vary from 98 to 80 percent coverage of all employment and wages subject to the State program.

(2) Effective with 1943 reporting, data relating to important changes in industrial classification of employers resulting from shifts in the nature of their business are shown in the ES–202. These changes are not included in the BES current quarterly releases. They are later used by BES in "wedging" the changes back over a six-month period on the assumption that it was the period during which the conversion took place gradually.

(3) Provisions for reporting of data for industrially reclassified units on ES–202 are summarized in section 2126 of the Guide for State Employment Security Administration as shown in the text table on the next page.

(4) Comments regarding unusual trends in employment and/or wages are found on the back of Form ES–202. They explain unusual shifts or fluctuations in the data due to seasonal variations, unusual month-to-month fluctuation in employment and wages, and other changes in business activity.

(5) States are urged to improve the regular quarterly reporting procedures regarding births, deaths, and changes of ownership of firms during the reporting period. These modifications are explained in sections 2130–2133 of the Employment Security Guide, part 3, volume I.

(6) All gradual conversions, including those excluded from the employment and wage data columns because of delinquency, which are effective the beginning of the current reporting period are listed in the columns showing data relative to industrial reclassification. Several employment-reporting units formerly in the same industry group and simultaneously reclassified into the same new industry group may be combined here. Only that part of the data of a former reporting unit which has been reclassified is listed. In this case estimates may be

4.7–5 UC Agencies' Reports to BES—Quarterly—Continued

entered for employment in third month of preceding quarter and wages for preceding quarter.

(7) Employment reported by the reclassified reporting unit for the month immediately preceding the effective date of reclassification is entered in the employment, third month preceding quarter column.

(8) The total wage figure reported by the reclassified reporting unit for the quarter immediately preceding the effective date of the reclassification is entered in the column designated "wages preceding quarter."

(c) MODIFICATION OF INSTRUCTIONS RELATING TO THE ES–202's.

(1) First quarter 1947 ES–202 reporting requirements were adapted so as to provide an initial new code benchmark on which the national and State employment series of the BLS, after conversion to the SIC basis retroactively to January 1947, could be based. The requirements were a first quarter 1947 2-digit summary tabulation (due not later than October 15, 1947) of monthly employment and quarterly wages and State totals of first quarter taxable wages and contributions; and a separate 3-digit breakdown tabulation for specified 2-digit groups.

(2) A second modification was the provision for optional submission of estimates of covered employment in lieu of quarterly ES–202's by State ES agencies which meet certain prescribed conditions.

DATA TO BE REPORTED ON ES–202 FOR RECLASSIFIED UNITS

Type of code change	Covered employment, first month preceding quarter; and wages paid, preceding quarter	Covered employment, three months of current quarter; and wages paid, current quarter	Data relative to industrial reclassification (previous and current 3-digit codes; employment, third month preceding quarter; and wages, preceding quarter)
Noneconomic: Affecting first two digits of code.	Exclude	Exclude	Exclude.
Affecting only third or fourth digits.	Include	Include	Do.
Economic: Small firms and complete conversions.	Include under old code.	Include under new code.	Do.
Gradual conversions.	do	do	Include.

SECTION 5

Basic Policy

5.1 SPECIFICATIONS OF THE COOPERATIVE FEDERAL-STATE EMPLOYMENT STATISTICS PROGRAM

The statement contained in section 5.1 is patterned very closely after an agreement reached by the Bureau of Labor Statistics, the Bureau of Employment Security and representatives of the Interstate Conference of Employment Security Agencies as the foundation on which a Federal-State employment statistics program should be built. Although the agreement was written originally to describe a situation on which the State contract rests with the UC agency, it is in general applicable, whatever State agency may hold the BLS contract.

5.1–1 Background

There is a well demonstrated need on the part of business concerns, labor unions, private research organizations, and official governmental agencies for current national, State, and local area employment, earnings, and hours statistics. Federal law places the responsibility for the development of national data of this character with the Bureau of Labor Statistics, and the BLS has accordingly been preparing and releasing national monthly employment statistics series for some decades. State responsibility is different in different States. The "employment stabilization" provision of most State unemployment compensation laws implies that the State UC agency will develop State and local area employment statistics. Under the general direction of the Bureau of Employment Security, all of these State agencies have for a number of years been compiling quarterly and annual totals of employment and wages reported by employers covered under their programs, and many have been developing employment statistics of wider coverage or greater currency. In some States, a State Labor Department, State University, or another agency has assumed the task of providing employment estimates. It is to the advantage of everyone concerned if the State and Federal agencies in this field can more effectively pool their resources and work towards the development of coordinated and comparable national, State, and local area employment statistics series.

In such a cooperative effort, the local operating units with primary responsibility for obtaining the necessary basic data for employers may advantageously be the State unemployment compensation agency or may be another agency. In any event, to insure satisfactory public understanding of the program, to facilitate inter-regional analysis, and to provide a sound and efficient foundation for national series, it is essential that there be uniformity in the concepts and certain of the procedures employed by these agencies. Primary responsibility for the development of standards to effect this uniformity is, in the interest of efficiency, centralized with the Federal agencies concerned. The Bureau of Employment Security represents the Federal agencies with respect to the basic collection, processing, and summarization of State contribution report data, and the BLS represents the Federal agencies with respect to all other standards and procedures bearing on

5.1–1 Background—Continued

the program. In exercising these responsibilities each Federal agency solicits the advice of the other and of the State agencies. Both Federal agencies offer certain services to the States, and BLS prepares and issues national series.

5.1–2 Objectives of Cooperative Program

In conformity with the statement of policy just set forth, the Federal agencies and interested State agencies enter into agreements with a threefold production objective:

(a) The preparation and release by the BLS of current monthly employment, hours, and earnings series by industry for the nation as a whole, with State-by-State breakdowns (compiled by the States) of selected national figures—these series to be based primarily on data from employment security contribution reports and monthly sample employer reports collected by the State agency.

(b) The preparation and release by the State agency of comparable State series on total number of employees in nonagricultural establishments, classified by industry, derived from the same basic employer reports. As resources permit, the State agency will also be able to develop from these reports companion series on hours and earnings, and, wherever possible, add to the employment series estimates of agricultural, self-employed, and domestic employment.

(c) As needed, and as resources permit, employment statistics series will be prepared and released by the State agency covering selected local areas in the State. It is expected that any new local area series will be compiled by procedures comparable with, and coordinated with, the similar States series. It is also expected that any local area employment, hours, or earnings series already inaugurated by the State will, as rapidly as possible, be made procedurally consistent with the State series.

5.1–3 Requisites for a Federal-State Working Agreement

The Federal agencies are willing to develop a specific working agreement with any State agency when the following conditions prevail, although preference in the establishment of new working agreements will be given to State Employment Security agencies:

(a) The State agency is ready, and the Federal agencies are satisfied it is able, to assume the responsibilities and make available the personnel and machine facilities outlined in section 5.1–5.

(b) No employment statistics working agreement is in existence between the BLS and another agency within the same State.

(c) There is no bar in State law or organizational policy to the participation of the State agency in such a working agreement.

(d) BLS is physically able to handle the workload involved in putting the new working agreement into effect. (BLS plant and personnel restrictions make it impossible to put into effect more than one new working agreement per month.)

5.1–4 Federal Responsibilities

(a) Within the limits of available title III (Social Security Act) and BLS funds, the Federal agencies will finance an approved State employment statistics program. If the State agency is a UC agency, financing is handled through BES channels.

(b) The Federal agencies will provide written procedural materials to assist the States in the operation of the program.

(c) BLS will request those firms located in the State who are now submitting monthly data to Washington to send future employment statistics reports to the State agency, and BLS will furnish the State agency with certain basic data concerning each such firm.

(d) BLS will detail an experienced person to work with the State unit for four or five weeks in setting up the mechanics for monthly processing of employer schedules.

(e) BLS will furnish the State agency with copies of its previously compiled nonagricultural employment estimates for the State and will provide professional advice on procedures

5.1–4 Federal Responsibilities—Continued

and techniques used in carrying forward these estimates to current months.

(f) BLS will prepare and transmit to the State each month estimates by State or Federal and (if needed) non-Federal governmental employment for incorporation into the State's estimates.

(g) BLS will provide the State with basic data obtained from Federal agencies such as the Interstate Commerce Commission, the Railroad Retirement Board, and the Office of Education, for use in estimating employment in other noncovered industries.

(h) BLS will collect monthly information from certain inter-State firms that have expressed a preference for sending all their data to a single agency and will provide the State agency with transcripts of the information pertaining to that State.

(i) BLS will furnish forms and schedules for use by the State in transmitting necessary information to Washington.

(j) The Federal agencies will furnish States that have size-of-firm coverage limitations with BOASI data for small firms, and with the results of studies on how these data may best be used to augment unemployment compensation figures.

(k) The Federal agencies will act as a clearing house for distributing to all States technical contributions to the program which are evolved by individual States.

5.1–5 State Responsibilities

(a) All funds earmarked by BES for employment statistics work may be expended only for carrying out the provisions of the agreement. (This proviso has been specified by the Federal Bureau of the Budget to insure the necessary continuity and quality of employment statistics series upon which the public is relying, even during emergency peaks of unemployment compensation load; it is not the intention of SSA to subject expenditures of these funds to detailed audit except when there are unreasonable lapses in the continuity or quality of the State's employment statistics. Moreover, this proviso, of itself, should not be considered as placing any new restrictions on the free use by State administrators of unearmarked title III funds.)

(b) In collecting monthly data from employers the State will use either the standard forms furnished by BLS or some mutually-agreed-upon adaptation which will secure data at the time and to the extent needed for national statistics.

(c) The State will agree to use the establishment reports for statistical purposes only and will agree to adhere to BLS regulations with respect to the confidential nature of these reports.

(d) It is particularly essential that monthly data needed by BLS for maintenance of its national series be transmitted to Washington in strict accordance with a time schedule to be specified in the working agreement with each State.

(e) The State will maintain a permanent transcribed record of the data reported by each cooperating employer and will establish an adequate delinquency control file for these employers.

(f) The State will solicit the cooperation of such additional employers as the BLS considers essential for the maintenance of national series.

(g) Copies of employment, hours, and earnings estimates prepared by the State will be transmitted to BLS on standard forms furnished by that Bureau and in accordance with time schedules to be prescribed.

(h) For purposes of uniformity between data released in the State and those summarized in Washington, a mutual policy to govern the frequency and character of revisions of previously published estimates will be worked out with the cooperating States.

(i) The State will participate from time to time with the Federal agencies in special studies of employment or pay rolls. Such studies may require special solicitation from respondents, processing, tabulating, or analysis. Consideration will be given to such work when budgets are approved.

5.1–5 State Responsibilities—Continued

(j) In the interests of maintaining valid national data and comparable State estimates, the State will conform to certain statistical standards relative to preparation of reports on covered employment, the development of benchmark data, industrial and area classification, the structure of the monthly sample, the editing and processing of monthly employer reports, and the calculation of current estimates. These standards are defined in the documents listed in section 2.4.

(k) ORGANIZATION. The staffing pattern of the agency will be such as to assure the effective discharge of the following functions:

(1) Industrial coding.

(2) Statistical processing and summarization of employment and wages data from contribution reports for benchmark purposes and required reports to the Federal agencies (if UC is the contract agency).

(3) Statistical editing of employment and wage data from contribution reports (if UC is the contract agency) and monthly schedules.

(4) Preparation of current monthly estimates and public releases of these estimates.

(5) Development of non-UC-covered benchmark data and adjustment of current series to benchmarks.

(6) Assembly of current monthly data for transmission to BLS for inclusion in national estimates and releases.

These functions can ordinarily be most effectively discharged in a single integrated unit within the research and statistics section of the agency.

(l) PERSONNEL. For the performance of these functions, it is believed that the following personnel will be required:

(1) To be responsible for the activities of this unit, the full time of a person with professional qualities, with a college education and at least three years experience in the fields of statistical research, collection programs, and interpretative work, or an equivalent combination of education and experience.

(2) One or more competent junior professional persons to assist the senior representative in operational research and supervision.

(3) Statistical clerks as needed.

(m) The State should have ready access to mechanical equipment for tabulating the data. Such tabulating equipment should be specifically allocated for employment statistics work in such amount and at such times as will permit the State to maintain its agreed-upon responsibilities.

5.1–6 Amendment or Termination of Agreement

Amendments to a working agreement may be made at any time upon concurrence of the State and Federal agencies. The working agreement may be terminated by either the State or the Federal agencies on 60 days' written notice, except that each party must agree to complete all regular and special endeavors already undertaken unless released by the other.

5.2 TECHNICAL STANDARDS

5.2–1 Quality Product

It is said frequently that the State Employment Program carries a three-fold responsibility: (1) the preparation and issue of a complete set of nonagricultural employment estimates with State and industry detail; (2) the release of these estimates promptly; and (3) the maintenance of high standards of technical quality. It is emphasis on the third of these items that is the underlying motif of the program. Every worker engaged in the program is required to give conscientious, careful service; he may be assured that program leaders are making every effort to utilize the best of modern techniques; he is urged to develop pride in the technical excellence of a quality product. There is no justification, however, for any worker resting on the oars in self-satisfaction; many inexact methods and rough approximations call for refinement and there is always need for improvement.

5.3 TIME SERIES

5.3–1 Continuity

One of the concepts which threads through much of the work of BLS is that of *continuity*. Generally, the task is not merely to measure the volume of employment or the amount of wages in a selected industry and geographic area at a given time, but also to measure the item in such a way that estimates are comparable with those at another point in time. This comparability between points in time is what is meant by *continuity*. Every technique and procedure which is considered for adoption is graded for effect upon continuity. In some circumstances the cost of maintaining continuity is too great and a break in a series is accepted. For example, the shift in industrial classification from SSA codes to SIC codes in January 1947 made it too difficult to maintain continuous State employment series in some manufacturing industries. Such a course of action is taken only if the difference in cost is very great. The principle of continuity is a dominant one in BLS practice and is rarely broken. Whenever the continuity of a series must be broken, if at all possible, an overlap of the series on the old and new basis over some period of time should be provided for in order to allow comparisons between the series on both bases.

5.4 AUTHORITY, PRECEDENCE, AND ADMINISTRATIVE CONTROL

5.4–1 General

The policies, rules and instructions which govern the operation of the State Program may be separated into two bodies of material. The first is composed of the pertinent general legal and administrative directives which control activities of the cooperating Federal and State agencies. The directives include Federal and State legislation regarding employment statistics and contracts and agreements among cooperating agencies as well as applicable administrative regulations and instructions. This body of material is collectively of prime importance and represents the highest level of authority governing the State Program.

The second body of material is that which is assembled specifically for the guidance of the program. It consists of manuals, guides, and other instructions issued by the cooperating agencies.

5.4–2 Instructions

The principal items of the second body of material are listed and described in section 2.4, vol. I, and the controlling specifications of the State program are set forth in section 5.1.

5.4–3 National Uniformity

An attempt is made to permit as much freedom of action in the State agencies as will not interfere with the preparation of homogeneous national estimates. Consequently, the State agency may adopt its own rules, methods, and procedures on any point not covered by Federal instruction and may choose between two or more options in many matters which are discussed in the manuals. On the other hand, there are certain standards and procedures which must be followed uniformly in all States if national figures are to have meaning. These standards and procedures are specified in the Federal instructions. For example, the same definition of employment must be used in every State if volume of employment is to be an understandable concept; therefore, no deviation from the definition presented in this *Manual* can be permitted. Constrastingly, methods of machine tabulation and processing may appropriately vary among States because of availability of equipment and volume of work, and accordingly are optional with the State agency. BLS technicians offer advice on such subjects as requested.

5.5 THROUGH 5.8 (RESERVED FOR OTHER BASIC POLICIES)

5.9 MISCELLANEOUS POLICIES AND PRINCIPLES

5.9–1 Confidential Nature of Reports

It is the policy of the Bureau of Labor Statistics that data collected from all respondents be used for statistical summaries in such a way that data relating to an individual respondent cannot be identified. This is a long-standing policy and one of the chief reasons for success in securing voluntary cooperation from firms in reporting. It is a confidence that must be maintained by BLS and by all BLS contract agencies. Several precautions must always be observed:

(a) The original schedule itself and the information thereon are not made available to anyone other than sworn employees of BLS or of the Contract State agency without express permission of the respondent *in advance.*

(b) Tabulations are presented in such a way that the figures in any cell represent three or more firms. In some circumstances an even more stringent rule must be followed. For example, if Firm A represents 80 percent of the pay roll in a given industry, data for that industry cannot be published separately, no matter how many firms are in the industry (see section 8.4–1 (c), vol. II).

(c) The list of reporters itself is kept confidential with a few exceptions—exceptions can be made only by the Washington office of BLS, in accordance with working rules approved by the Commissioner.

5.9–2 Dissemination of Information

Neither BLS nor any of its Contract State agencies may show partiality in the release of information. Data released to one individual or organization must be available to all other members of the public. BLS practice is positive as well as negative on this point; e. g., if special data are made available to an employer association upon its request, BLS endeavors to place the same data before the corresponding employee union if one exists.

5.9–3 Use of Best Available Data

BLS and its Contract State agencies are committed to use the best data available rather than to use data from any particular designated source. This means that procedure must be modified to utilize newly available data if the new data are superior to those currently in use and provided proper consideration is given to the continuity principle. This is the course taken even though the data replaced are regularly collected items of BLS or the UC system.

See end of Volume II for Index to Volumes I, II, and III

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VOLUME

2

BLS-STATE

Employment Statistics Manual

Volume II OPERATING GUIDE

United States Department of Labor
Bureau of Labor Statistics

BLS-State

Employment Statistics Manual

in three volumes

Volume II—Operating Guide

UNITED STATES DEPARTMENT OF LABOR
Maurice J. Tobin, *Secretary*
BUREAU OF LABOR STATISTICS
Ewan Clague, *Commissioner*

U. S. Government Printing Office, Washington 25, D. C.

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SECTION 1

General Method

1.1 INTRODUCTION

1.1–1 Primary Objective of State Program

The primary objective of the BLS State Employment Statistics Program is to prepare monthly employment estimates for nonagricultural establishments for each State, by industry, on a current basis. The amount of detail to be published for each State will vary, depending upon the importance of individual industries in that State's economy. It is contemplated that hours and earnings data and area employment estimates will also be prepared, at a later date, as part of the State Program.

1.1–2 Use of SSA and Census Data to Supplement BLS Sample Data

Employment statistics prepared by BLS and its system of Contract State agencies are distinguished from employment statistics prepared by other agencies by their timeliness, scope, and industrial detail. The Bureau of the Census compiles comprehensive employment statistics in its decennial census. However, the most recent of these was taken in 1940. The periodic censuses of manufacturing and business, although providing useful employment data, were not taken between 1939 and 1947, when only a census of manufactures was taken. The Social Security Administration provides employment statistics for large segments of the employed population in its Unemployment Compensation and Bureau of Old-Age and Survivors Insurance reports. However, the time lag in the availability of the SSA data precludes their use for estimating current employment. Nevertheless, Census and SSA data are extremely useful, both as guideposts from which current estimates can be projected and as periodic checks on the accuracy of the BLS estimates.

1.1–3 BLS–State Employment Statistics Manual

The *BLS-State Employment Statistics Manual* is designed to supply the Contract State agencies with basic instructions for preparing the monthly employment estimates. Vol. I, *General Topics*, contains background material for the State Program. Vol. II, *Operating Guide*, is designed to provide all basic procedural instructions and to serve as a handbook for day-to-day preparation of employment estimates. Vol. III, *Technical Appendix*, contains theory and mathematical developments underlying the recommended procedures. BLS *Employment Instructions, Series A and B*, contain supplementary instructions.

1.1–4 Basic BLS Method of Estimating Current State Employment

In general terms, the basic BLS method of estimating current monthly State employment, by industry, can be resolved into the following four steps:

(a) A total employment figure (benchmark) for an industry, as of a specified period, is obtained from sources which, singly or in combination, are known to provide either a complete count of employment for the industry or an estimate of reasonable accuracy.

(b) Employment data for a sample group of reporting establishments are compiled for the benchmark month and subsequent months.

(c) The ratio of employment in one month to that in the preceding month, for identical estab-

1.1–4 Basic BLS Method of Estimating Current State Employment—Continued

lishments in each industry, is computed for each consecutive pair of months. These ratios are called link-relatives.

(d) The link-relative for the month following the benchmark month is applied to the benchmark for the industry to obtain the estimate of total employment in that month. This estimate is then used as a base for deriving the estimate for the next month. The same procedure is followed in succeeding months until data for setting up a new benchmark become available. At that time, an adjustment is necessary to eliminate possible differences between estimates based on the old benchmark and the new one.

The principal problems and operations involved in preparing estimates are outlined briefly in the following paragraphs of section 1 and discussed in greater detail in subsequent sections.

1.2 INDUSTRIAL CLASSIFICATION

1.2–1 Definition

The field of economic activity, in which employment statistics and other types of data are frequently subjects of study and analysis, is so vast and varied in nature that any attempts to undertake such projects would be hopeless if the various activities composing our economy were not first resolved into groups and categories. This break-down is called industrial classification. Several systems of industrial classification have been devised, all similar in their broad design, but differing in essentials because of the varying needs and concepts of the several agencies employing them.

1.2–2 Classification of Reporting Units in Sample and Universe

Some important considerations have guided the choice of an industrial classification system. Estimating procedure entails the use of the data of other agencies for determining benchmarks. In projecting the benchmarks through the use of data for sample establishments, it is important that reporting units in both sample and universe be classified in the same way.

1.2–3 Classification System Should Minimize Need for Adjustment

Where the reporting units differ as to classification, as is frequently the case among several statistical agencies, care must be taken to adjust for the differences when data from two or more agencies are used in making estimates. Clearly, it is advantageous, from this point of view, to select a classification system that will minimize the need for adjustment.

1.2–4 Continuity of Classification Desirable

At the same time, some degree of continuity of classification is essential to economic interpretation of the statistics. Accordingly, the BLS practice has been to classify a specific industry as of a given period and to maintain this classification for a reasonable length of time, thereby permitting analyses of industrial trends of employment. Establishments are classified according to their major activity on the basis of value of product or service in relation to the industry definition.

1.2–5 BLS and Changes in Classification

Only relatively permanent changes in product or service are regarded as industry conversions by BLS. Thus, no changes in classification were made by BLS during the war, except where wartime changes in product or service cut across industry division lines.

1.2–6 Policy Under State Program

The present policy under the State Program is to make all changes in the codes of BLS reporters effective in the period for which the next benchmark will be prepared. However, provision exists for making intermediate revisions in instances where such changes would result in significant differences in published categories of employment (see sec. 2, vol. II, for more complete expression of classification policy).

1.2–7 SIC—SSA Classification System

The classification system being used under the State Program is the Standard Industrial Classification for manufacturing and the 1942 Social Security classification for nonmanufacturing. Estimates are published within the framework of this system, comprising industry *divisions*, *major groups* (2-digit codes), *industry groups* (3-digit codes), and *industries* (4-digit codes).

1.2–8 Source of BLS Codes

The codes being used for BLS reporters were for the most part obtained from the BOASI in 1947 and 1948. Differences between BLS and BOASI codes were investigated and, wherever possible, reconciled. The sources of coding information for new reporters are the "principal products" or "kind of business" question on the BLS schedule and information available in the Contract State agencies.

1.3 INDUSTRIES FOR WHICH ESTIMATES ARE MADE

1.3–1 Minimum Requirements

In the State employment program, minimum requirements are that estimates be compiled for employees in nonagricultural establishments by nine major industry divisions and by approximately 40 major groups. The list is shown in section 8, volume II.

1.3–2 Detail in Worksheet Estimates

In addition, worksheet estimates should be made for finer industrial segments, in order to provide more accurate estimates. In most cases this means compiling estimates for each 2-digit major industry group and in some cases for 3-digit industry groups and even for 4-digit industries. Employment figures for the 3-digit groups comprising a 2-digit major group should add to the 2-digit total. The same rule applies to the 4-digit industry components of a 3-digit group. Three-digit groups from two different 2-digit major groups, or 4-digit industries from two different 3-digit groups should not be combined.

1.4 BENCHMARKS — GENERAL PROCEDURE

1.4–1 Usual Source of Benchmark Data

A complete count or benchmark is necessary as a reference point on which BLS estimates can be based. State Program benchmarks for 1939 and subsequent years have been based primarily on UC data. The Bureau of Old-Age and Survivors Insurance, the Interstate Commerce Commission, the United States Maritime Commission, and other agencies, both public and private, also supply data which are used in preparing benchmarks. New benchmarks are established annually, in general, for the State Employment Statistics Program, and apply to a given 3-month period.

1.4–2 General Method

The general method of compiling benchmarks, described in detail in section 3, volume II, applies to nearly all of the industries covered by the Federal Unemployment Compensation Act and the unemployment compensation laws of the various States. The principal exception is the construction industry, which presents special problems in estimating employment and is treated fully in section 9, volume II. Public employment, not covered by unemployment compensation, is discussed in section 10, volume II. Several other industries, both covered and noncovered, which present special problems, are discussed in section 11, volume II.

1.4–3 UC Data

Unemployment compensation data, generally speaking, are the principal source of benchmark data for covered industries. The UC annual report, ES–203, provides employment data, by 3-digit industry, for each month of the year. The UC quarterly report, ES–202, contains data by 2-digit industry; for most States the report includes only establishments which have re-

1.4–3 UC Data—Continued

ported for both the current and preceding quarters as of the cut-off date for preparing the ES–202, and for the remaining States the report is in the form of estimates of total *covered* employment for the current quarter. Primary reliance, for the purpose of developing benchmarks in the State Program, is placed on special listing tabulations similar to the ES–203 report.

1.4–4 Characteristics of UC Data

Certain characteristics of the UC data make it necessary to supplement and adjust these data in order to obtain benchmarks. Briefly stated, the more significant of these characteristics are:

(a) SIZE-OF-FIRM EXCLUSIONS. Several of the States do not require participation in the UC program by firms employing fewer than a specified number of employees (usually 8).

(b) TIME PROVISION EXCLUSIONS. Several of the States do not require participation by an employer unless he has employed the required minimum number of employees in a specified number of weeks (usually 20).

(c) CLASSIFICATION DIFFERENCES. Until a more complete integration of BLS and BES industrial classification instructions has been achieved, there may be some differences in the timing of code changes, particularly in States where the employment security agency is not preparing current estimates in cooperation with BLS. The classification of large firms must therefore be checked in preparing benchmarks to insure that they have the same classification in the new benchmarks as in the sample; differences which may be uncovered will help in the analysis of possible differences in levels between the benchmarks and the State series.

(d) DIFFERENCES IN REPORTING UNITS. The same firm may report to both BLS and UC and still not comprise the same industrial elements in its reported data. Thus, a reporting unit comprising several establishments may submit one employment figure for the entire unit to UC and separate employment figures for some but not all of the several establishments to BLS.

(e) DELINQUENCY. Some employers submit their data too late for inclusion in the UC report.

(f) MAXIMUM INCOME EXCLUSIONS. Workers who have earned $3,000 before the end of the year from a single employer and whose wages are therefore no longer liable to UC taxation may be erroneously omitted from employment counts by some employers.

1.4–5 Need for Listing Tabulations

Partly because of the facts just listed, and to permit more careful editing of the data reported by employers to the State UC agencies, benchmarks are usually based on special listing tabulations of individual UC employer reports for a given quarter rather than on the ES–203 itself.

1.4–6 Small-Firm Data

In those States with size-of-firm exclusions, an appreciable segment of the total employment figure is often excluded from the UC totals. It is necessary, therefore, to supplement the UC figures with some small-firm data. BOASI data for small firms are usually used to supplement the UC data.

1.4–7 Other Sources of Benchmark Data

Sole reliance should not be placed on the above data in the development of benchmarks. Intensive investigation should be made in each State to determine whether or not other information is available for this purpose. For example, some States conduct an annual census of manufactures, while most States have divisions of factory inspection which generally have on file a certain amount of employment data. In addition, the information compiled by the Committee for Economic Development in some 2,000 communities may be of value in checking lists of firms. The Washington office should be advised of all such sources of benchmark data in a State.

1.4–8 Reference: Industries Requiring Special Treatment

See sections 9, 10, and 11, volume II, for special practices followed in preparing benchmarks in selected industries.

1.5 CURRENT ESTIMATES

1.5–1 General Method

BLS State estimates are derived by a benchmark and link-relative technique. First, a benchmark is established. Then, from a monthly series of employment statistics, link-relatives are computed by dividing the employment in establishments in one month by the employment in the same establishments in the preceding month. These ratios or link-relatives are chained to the benchmark to obtain successive monthly estimates. Projection of benchmarks into current estimates may be carried out by means of:

(a) Link-relatives derived from the BLS State sample.

(b) Link-relatives derived from other employment data (frequently ES–202 data).

(c) Link-relatives derived from related series of nonemployment data.

(d) Extrapolating the benchmarks: e. g., by an index based on known seasonal movement; perhaps even as a constant.

The order of preference for these methods is the order in which they are listed. However, for nearly all industries, an adequate BLS State sample is the only really satisfactory device and samples should, therefore, be developed as rapidly as possible. These methods are treated in more detailed fashion in section 4, volume II.

1.5–2 Selection of the Sample

Originally, the sample was set up for the basic purpose of estimating national data and could not be depended upon to yield reliable State estimates. However, attempts have been made to improve the sample in each State, and work is progressing on developing a scientifically stratified sampling design upon which the sampling work in each State can be based. Until the scientific sampling plan can be set up, present samples must be examined and deficient samples should be expanded. Expansion should be controlled rather carefully because of the additional schedule processing work involved.

1.5–3 Checking the Estimates

The estimates should be examined carefully for conformity with known economic developments. Similarly, the short-time trend and seasonal movement should be compared with other agency data such as the UC quarterly reports (ES–202) and with special material compiled by other divisions of the BLS or by other Government agencies. Such examination will indicate whether the estimates are getting out of line and thus show the need for revisions in techniques or adjustment of the levels or movements of the data.

1.6 REVISIONS

1.6–1 Need for Revisions

It has been noted that estimates are prepared by projecting the benchmark on the basis of employment changes in the BLS sample. These estimates are subject to revision as a result of sampling bias, late reporting, omission of new firms, errors in reporting, and other causes. It is frequently possible to observe inadequacies in the original estimates after their publication, as subsequent information comes to light. Accordingly, these estimates are tacitly acknowledged to be subject to revision.

1.6–2 Monthly Revisions

The monthly State release includes estimates for the current month, the preceding month, and the current month of a year ago. The current month estimate is based on preliminary tabulations of sample establishments. The estimate for the preceding month is based upon the regular monthly tabulations for that month and is a revision of the preliminary estimate of that month. Data received from late reporters and additional information which has become available subsequent to preparation of the esti-

1.6–2 Monthly Revisions—Continued

mate for the second month preceding the current month may indicate that the estimate for that month should be revised for publication. If desired, in such cases, current month, *two* preceding months, and current month of a year ago may be published in the monthly release.

1.6–3 Benchmark Revisions

The next regular revision (after the monthly revision of the previous month's or two previous months' estimates) will be made when a new benchmark is available. At that time, the series should be revised in the light of information regarding special causes of error, such as information acquired during the inter-benchmark period concerning a large new firm which began operations during that period but was not included in the sample from which trends were computed. After these revisions have been made, the estimate for the new benchmark month will be raised or lowered, if necessary, to equal the new benchmark, while the estimates for the inter-benchmark months will be revised to form a continuous series with the previous and new benchmarks. Estimates that have already been made for months subsequent to the new benchmark month will also be revised to form a part of the new continuous series (i. e., the sample link-relatives will be joined to the new benchmark for months subsequent to the new benchmark month).

1.6–4 Other Revisions

Revisions, other than the monthly and the benchmark revisions, should be kept to a minimum. Only really significant variations from the estimates should be considered as justification for revision at other times. The Washington office will be notified of such changes, while cases in which there is some doubt as to the need for revision should be referred to Washington.

1.6–5 Reference: Detailed Discussion

The subject of revisions is discussed in detail in section 5, volume II.

1.7 PREPARING BENCHMARKS AND MAKING THE ESTIMATES

1.7–1 Outline: Step by Step Procedure

Following is a general outline of the principal steps involved in the compilation of employment estimates from establishment data:

(a) Determine the industries and industry groups to be estimated in the State, bearing in mind the minimum list of industries for which estimates are to be compiled.

(b) Determine the source of benchmark data that will be needed, including both the most desirable forms in which the data should be presented and alternative forms. UC and BOASI are frequently used as the sources although all available sources should be examined.

(c) Arrange to obtain the benchmark data needed.

(d) Check the classifications of the largest firms by both BLS and the agency whose data are used as benchmarks.

(e) Adjust the data for classification differences.

(f) Combine data from separate sources, where necessary, to obtain the benchmarks, e. g., UC plus BOASI.

(g) Tabulate the sample employment data for the latest benchmark month and subsequent months on an "identical establishment" basis from month to month.

(h) For manufacturing industries, resolve the latest benchmark into production and nonproduction worker components using the ratio of production to nonproduction workers in the sample as the basis for the break-down. (But see (l).)

(i) Obtain the ratio of production workers in the month following the latest benchmark month to production workers in the latest benchmark month; obtain the corresponding ratio for nonproduction workers.

(j) Multiply the production worker component of the latest benchmark by the production worker ratio obtained in (i) to obtain the pro-

1.7–1 Outline: Step by Step Procedure—Con.

duction worker estimate for the month following the latest benchmark month. Obtain the nonproduction worker estimate for the same month in similar fashion.

(k) Add the production and nonproduction worker estimates to obtain the estimate of total employment.

(l) In the case of nonmanufacturing industries, project total employment estimates by applying the monthly percentage changes in total employment in the sample to the benchmark. This is in contrast to the procedure required in steps (h) through (k) for manufacturing industries, a basic requirement under the State Program around which the procedures in the following sections are written. However, in small States where an hours and earnings program is not contemplated, the procedure for nonmanufacturing industries may be followed for manufacturing industries.

(m) When the estimates for the separate industries have been completed in any State, add these estimates to arrive at totals for major industry divisions. Those used at present by BLS are:

(1) Manufacturing.
(2) Mining.
(3) Contract Construction.
(4) Transportation and Public Utilities.
(5) Trade.
(6) Finance.
(7) Services.
(8) Miscellaneous.
(9) Government.

The sum of these nine divisions will comprise the estimate for nonagricultural establishments in the State.

1.7–2 Reference: Detailed Discussion

Detailed procedures for preparing the benchmarks and making the estimates are described in sections 3 and 4, volume II, respectively.

SECTION 2

Industrial Classification

2.1 INTRODUCTION

2.1–1 General

A discussion of the general principles of industrial classification appears in volume III, section 5. Other references to industrial classification are made where appropriate throughout this *Manual*. In this section, certain specific points on operating policy under the State Program and on interagency classification activity are discussed. It will be noted that present BLS and BES instructions on the timing of changes in classification permit differing practice between contribution report data and current sample data. Revisions of instructions to avoid this are now under study by the two Federal agencies.

2.2 BLS OPERATING POLICY

2.2–1 Classifying an Establishment

The BLS classifies an establishment on the basis of principal product or activity as determined from annual sales value. Product or activity information is called for on the schedule.

When clear-cut evidence is available indicating that the classification of an establishment on this basis does not adequately represent the activity involving the largest amount of employment, the matter should be brought to the attention of the Washington office of the BLS.

2.2–2 The Reporting Unit

A reporting unit is that unit which submits employment reports. It is usually an establishment but may be a group of establishments in an area, State or in the entire United States, a department, agency, division, etc. When one report covers more than one establishment, the actual number of establishments is included in the tabulations. When a report covers a department of an establishment, the department is counted and classified exactly as if it were a distinct establishment. The "number of establishments" column on a BLS tabulation therefore consists of the total number of establishments reported on individual and consolidated reports, plus the number of departments reported separately.

2.2–3 The Classification of Central Administrative Offices

The classification of central administrative offices (not wholesale outlets) of multi-industry firms often is a knotty problem. The office may administer establishments in several industries and the allocation of personnel is usually not feasible. In such cases, the office should first be classified by the major activity among the units administered (manufacturing, trade, service, etc.) and then into the industry represented by the largest establishment within this major field of activity if the industries differ. This rule is merely a general guide. All difficult cases should be reported to the BLS office

2.2–3 The Classification of Central Administrative Offices—Continued

in Washington. In determining "major activity among the units administered" it would probably be best to use number of employees as a criterion in most cases. Gross sales may be meaningless as, for example, in the case of a central office administering a manufacturing plant and wholesale outlets. The sales are realized through the wholesaling activity, but manufacture is obviously the important activity from the point of view of classification. "The largest establishment within this major field of activity" should also probably be determined by the number of employees, but this may be more variable.

2.2–4 Initial Coding of Establishments

The new SIC codes were initially obtained for BLS reporters from the BOASI. They were based on the information BOASI had on hand or obtained ("refiling" project—see vol. I, sec. 4.6–7) during 1946. Differences from the BOASI codes were reconciled as far as possible through information available to BLS and through the State UC agencies.

Establishments which became BLS respondents after the termination of the BLS–BOASI matching project were coded on the basis of information submitted on the BLS schedule and whatever other information was available (example—UC code).

2.2–5 Changes in Codes

(a) INTRODUCTION. In establishing benchmarks each year, there is some systematic checking of the industry codes of BLS reporters, the extent varying from year to year (usually covered in memoranda). *Under the State Program all changes in the codes of BLS reporters will be made effective with the sample tabulation of identical firms for the first 2 months of the quarter for which benchmarks will later be obtained.* For example, if the first quarter of 1949 is expected to be a benchmark quarter, then all code changes required by information which becomes available after the quarter of the previous benchmarks will be made effective with the sample tabulation for January–February 1949. When the benchmark data for the first quarter of 1949 later become available, these code changes should be incorporated in the benchmarks if they are not already included. In summary, since the new codes for establishments involved in a change will be introduced simultaneously for both January and February data, the employment aggregates for the industries involved will not be materially affected until adjustments to the new benchmarks are made (see vol. II, sec. 5); hence in the interim the employment *levels* of the reclassified establishments will be reflected in the old industries while the *trends* in the reclassified establishments will be affecting the new industries.

(b) BASES FOR CODE CHANGES. There will in general be two bases for code changes:

(1) The existing code is in error. The BES refers to these as "noneconomic code changes." (*Note:* The BES also includes code changes due to changes in classification structure among noneconomic code changes; see vol. I, sec. 4.7–3 (b) (6) for a detailed description of the types of code changes as defined by BES.)

(2) There has been a change in the respondent's industrial activity. The BES divides these into two subgroups, "small units and complete conversions" and "gradual conversions."

(c) EXCHANGE OF INFORMATION BETWEEN WASHINGTON AND THE CONTRACT STATE AGENCIES. *No changes should be made in the codes of BLS reporters without clearance with the Washington office of BLS.* Whenever information is available in a State indicating that the code for a BLS reporter is incorrect (UC codes when checking benchmark listings, information from the respondent, errors, etc.), this information should be transmitted in a memorandum to Washington. The memorandum should contain the full name, address, and BLS codes encountered or proposed, the reasons therefor, and any other helpful information, comments, etc. Additional sources for checking are available in Washington. (See the discussion on interdepartmental committees on classification in vol. II, sec. 2.3.) Conversely,

2.2–5 Changes in Codes—Continued

should Washington initiate a change in code, the affected Contract State agency will be notified along with the reasons therefor. Files of authorized code changes shall be kept both in Washington and in the State office for changing the codes of the BLS reporters at the appropriate time and for subsequent verification of their incorporation in the benchmarks.

(d) EXISTING CODE IS IN ERROR. Coding differences of this type are attributable to erroneous information, erroneous interpretations, clerical errors, etc. The incorrect code will usually have been in effect from the time the respondent began reporting to BLS or from the previous benchmark period, whichever is later. Since large reporters are usually checked carefully, carrying coding errors in a few small firms until the next benchmark period should not lead to much difficulty.

(e) A CHANGE IN THE RESPONDENT'S INDUSTRIAL ACTIVITY.

(1) *Complete conversions.* These involve a sudden and complete change from one industrial activity to another. They have often been characterized by a substantially complete shutdown for a short period for retooling and plant reorganization. Complete conversions are also effected without a shut-down, in which case the old and the new activities overlap during a brief period. Complete conversions were, of course, important around the war period, but may occur occasionally in the future.

(2) *Gradual conversions.* These cases will probably be the most troublesome. They are cases in which the shift from one product to another takes place over a long period ranging from several months to several years. The greatest difficulty in these cases will be in deciding whether the change is permanent. For example, an establishment reports the distribution of its gross income as 45 percent due to product A and 55 percent to B in one year and 55–45 the next. Can it be assumed that the change will continue? The answer will, of course, depend on the particular industries and establishment involved. Often, more information will have to be sought.

As a general rule where the major activity of a firm as measured by annual gross value of product shifts back and forth, it is not desirable to change the code with each annual shift. Such changes lead to breaks or changes in employment which exaggerate what actually is going on. For example, let us say an establishment has 3,000 employees theoretically allocable to product A and 4,000 to B the first year, and 4,000–3,000 the next. A change in code from industry B to A would result in an employment increase of 7,000 in industry A, while an increase of only 1,000 has occurred, and in a decrease of 7,000 in B, while a decrease of only 1,000 has occurred. If the situation is reversed the following year, correspondingly magnified changes would show up in the other direction. Accordingly, the code that should be retained is that code which most nearly represents the firm's major activity over several years, if this is determinable. Otherwise, it is preferable to retain the first code assigned.

When a gradual change in major activity appears to be permanently established, the change should be reflected in the first benchmark period following recognition of the change. If the permanence cannot be established, it is preferable to retain the old classification for another year. Should a change again be indicated by the product information submitted for the second year, the change could then be regarded as permanent.

(f) EXCEPTIONS. There may be times when establishments whose codes need changing are so large, or the cumulative effect of several needed code changes is so great, that it would be desirable to make the changes and revise the affected series between benchmark periods. Such changes should be kept to an absolute minimum. In deciding whether or not such revisions should be made, the criteria set forth in vol. II, section 4.5–7, should be used as a guide.

(g) SUMMARY. The policy outlined here is one of fixed classifications between benchmark periods. The BLS uses fixed classifications, rather than continuously changing or current classifications (i. e., making changes as soon as it is determined that a change has occurred) for

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2.2–5 Changes in Codes—Continued

the following reasons:

(1) While the BLS shows employment levels, its primary short-term interest is in month-to-month changes. If continuous changes in classification were permitted, month-to-month changes in employment and pay rolls might be distorted.

(2) A claim to complete currency could not be made without a program of continuous checking of establishment activities and of prompt changes in records. Continuous checking and prompt record changes is a sizable administrative task which the BLS cannot undertake or recommend to the contract States.

(3) Some reference has already been made to the desirability of interagency uniformity. At the present time there is a much better outlook for achieving this if classification changes are made at specified periods rather than continuously for obvious administrative reasons.

(4) It may be argued that by not making classification changes when they occur, the actual shifts of American industry and therefore changing levels of employment by product are not being properly reflected. However, it has already been noted that the classification of establishments gives only an approximate picture by product. Continuous shifts in classification can hardly improve the approximation since secondary products are carried with the shifts.

In making classification changes only at the benchmark period, changes in establishment activity are accounted for without losing the month-to-month detail and without the huge administrative task of continuously checking classifications. Since series are tapered gradually to the benchmark levels, this method permits as good a claim as any to actually representing what is going on in American industry. Except for the war period most activity changes are gradual, pointing to tapering rather than to sudden shifts.

The following table summarizes the actions to be taken when changes in codes are indicated:

Basis for code change	Immediate action	Timing of code change
Existing code is in error	Notify Washington	Change to be made at following benchmark period.
Gradual conversion	(a) When change in annual major activity first appears, try to find out if permanent. If not expected to be permanent, do not make code change. (b) If expected to be permanent, notify Washington. (c) If permanence cannot be ascertained, wait another year. If major activity repeats, regard change as permanent and notify Washington.	Change to be made at the benchmark period following determination of permanence.
Complete conversion	Notify Washington	Change to be made at the benchmark period following conversion.

2.2–6 Coding Guides

BLS operating personnel and the users of BLS data will find the following coding guides helpful:

(a) GENERAL.

(1) Standard Industrial Classification Manual, Vol. I, Manufacturing Industries, Part 1, Titles and Description of Industries (Nov. 1945).

(2) Standard Industrial Classification Manual, Vol. I, Manufacturing Industries, Part 2, Alphabetical Index (Dec. 1945).

2.2–6 Coding Guides—Continued

(3) Standard Industrial Classification Manual, Vol. I, Manufacturing Industries, Part 2, Alphabetical Index by Industries (Nov. 1945).

(4) Social Security Board,[1] Industrial Classification Code, Vol. I, Description of Industries (1942): only the nonmanufacturing sections are needed.

(5) Social Security Board,[1] Industrial Classification Code, Vol. III, Nonmanufacturing Index (1942).

(b) COMPARISONS OF OLD BLS CODES WITH CODES FROM OTHER STRUCTURES.

(1) *Manufacturing—SIC.*

Conversion List #1—In BLS industry code order.

Conversion List #2—In SIC industry code order and showing SIC 3-digit and 2-digit summaries of the BLS codes covered.

Conversion List #3—A recapitulation of the 2-digit summaries in Conversion List #2.

Conversion List #4—By BLS major group showing industry detail.

(2) *Nonmanufacturing—SSA (Except Construction and Government).*

In SSA code order (June 1945).

In BLS code order (August 1945).

2.3 INTERAGENCY COMMITTEES

2.3–1 Interagency Committee on the Development and Application of Standard Industrial Classification

The Division of Statistical Standards has established an Interagency Committee on the Development and Application of Standard Industrial Classification which will concern itself with: (1) the development and maintenance of the standard industrial classification; (2) policies regarding the application of the standard classification to individual records, including the introduction of revised codes, the timing and frequency of code changes, etc.; (3) methods for insuring comparability of industrial classification for the same establishments from agency to agency, including measurement of differences in statistical series arising from lack of uniformity; (4) problems of comparability arising from the use of industrial classifications for different purposes (measurement of employment, accidents, production, etc.), or arising from differences in the concept of the reporting unit (establishment, concern, or financial unit); and (5) the establishment of a central file of establishments.

In contrast, the major effort of interdepartmental committees on classification has in the past been directed toward the development of classification structures. You will be kept informed of important developments resulting from the work of this Committee and its subcommittees. Problems you encounter in classification which may be alleviated through interagency action should be submitted in detail to Washington.

[1] Now the Social Security Administration.

SECTION 3

Benchmarks

3.1 GENERAL

3.1–1 Sample Estimates Require Base

One way to secure current statistics for employment in nonagricultural establishments would be to conduct a complete census of employment every month in all such establishments. Such a procedure would be open to many objections, not the least of which is that the cost in money and time would be prohibitive. Therefore, it is necessary to prepare monthly estimates from employment reports furnished by a small sample of the total number of establishments. To determine the proper levels of employment, however, it is essential to know the total number of persons employed in each nonagricultural industry for some given time period. When such information is available, it is possible by the use of the sample to project estimates which show a reasonably correct level of employment.

3.1–2 Sources of Benchmark Data

Such a complete count (or accurate estimate) of employment for a given period is called a "benchmark." The Bureau has used various benchmarks in the preparation of its employment estimates. The national series on manufacturing were formerly based on the censuses of manufactures which were taken biennially for a number of years through 1939. Some of the national series for nonmanufacturing industries used data from the 1939 census of business as a benchmark. Since 1939 these national series have been adjusted to total of workers covered under the Social Security Program. In the State Program a complete tabulation of employment in firms liable to contributions to the State unemployment compensation funds has been used. This tabulation has been supplemented by data from the BOASI on employment in firms exempt from State UC laws because of their small size, and by special benchmarks for the noncovered industries; that is, those which for one reason or another are not subject to UC. An example is the State breakdown of employment on interstate railroads furnished from time to time by the Association of American Railroads.

3.1–3 Benchmarks Used to Correct Levels

In addition to giving us a starting point for employment estimates, benchmarks serve another purpose. Over a period of time, an estimate carried forward by use of a sample may depart quite markedly from the true level of employment in the industry. To rectify this deviation, frequent adjustment of the series to new benchmarks is necessary. The most common type of error is the downward bias produced by the difficulty of introducing new firms into the sample at the time they commence operations. Other causes of difference in level between the estimate and benchmark are unrepresentativeness of the sample, atypical behavior of sample firms, and atypical behavior of firms not included in the sample.

3.1–4 UC-BOASI Data Best Source of Benchmark Material

Firms in industries comprising the great majority of workers in nonagricultural employment furnish quarterly reports on employment to the State UC agencies and the BOASI. These data are the best source of benchmark material for recent periods for nearly all major industries. Therefore, this section will be entirely confined to a discussion of UC and BOASI benchmarks. Information on benchmarks for industries other than government not covered or only partially covered by the SSA and UC State legislation is given in volume II, section 11. Government employment is discussed in volume II, section 10, and an account of the special problems involved in the use of UC–BOASI benchmark data in the construction industries is given in volume II, section 9.

3.1–5 Reference: Records and Reports and Other Important Uses of UC Data

The problem of establishing benchmarks is closely related to that of record maintenance; therefore, volume II, section 7, should be read carefully, as well as section 3, in order to obtain a complete picture. In addition, volume II, section 4.5, should be consulted for other important uses of UC data.

3.2 BENCHMARK LISTING TABULATIONS

3.2–1 Description

Benchmark listing tabulations of UC accounts, for use in the State Program, have generally been prepared for the third quarter of each of the years 1943, 1944, and 1945. The accounts are listed by employer serial number within each 3-digit UC industry. For each separate account the industry code, the employer serial number, the area code, and employment for each of the 3 months (July, August, and September) are given. For the purpose of the listing, each separate breakdown of a multi-industry or a multi-area account is considered as a separate account. All amended and supplemental accounts are included in the listing. The total number of accounts and the total employment in each of the three months for each 3-digit industry are also shown on the listing. An example of such a listing is given in table 3.1.

3.2–2 1947 Benchmarks

A listing for the third quarter of 1946 was not used; instead, one for the first quarter of 1947 was generally used. The reason for this shift was that the UC agencies and the BOASI had changed to the SIC code structure in manufacturing industries effective January 1, 1947. It was thought that the most effective way to incorporate the code changes into the State estimates was to adjust them to a first quarter 1947 benchmark. The new series began on the basis of the new industrial classification system, and no adjustment was required of the 1946 data to the 1947 benchmark.

3.2–3 Due Date

If a contract agency is not a UC agency, the benchmark listing tabulation is to be obtained from the UC agency in the State about 7 months after the end of the benchmark quarter. Thus, a listing tabulation for the first quarter (ending March 31) would be due about November 1 of the same year or as soon thereafter as possible. In setting a due date approximately 7 months after the period to which the data relate, it is assumed that the benchmark listing will be only slightly affected by delinquent reports, correction of employer reports, and other factors. If a third quarter benchmark is used, the benchmark listing tabulation should be run at the time the UC agency prepares the ES–203 for the year.

3.2–4 Cut-off Date

The cut-off for inclusion of reports in the listing should be the latest date consistent with meeting the due date. One original and one carbon of the listing are usually required in preparing benchmarks, particularly in non-UC contract agencies.

TABLE 3.1

BENCHMARK LISTING TABULATION
WEST DAKOTA FIRST QUARTER 1947

Industry	Area	Serial number	Employment		
			January	February	March
2012	090	001152	15	17	25
2011	071	001167	1091	1175	1127
2011	082	001203	2394	2320	2176
2012	082	001205	57	45	77
*	*	*	*	*	*
*	*	*	*	*	*
*	*	*	*	*	*
2012	007	19798	12	12	14
201	25		13, 953	13, 800	13, 819
2024	089	001101	72	80	81
2022	068	001123	24	27	35
*	*	*	*	*	*
*	*	*	*	*	*
*	*	*	*	*	*
*	*	*	*	*	*
*	*	*	*	*	*

3.2–5 Supplementary Material

Certain supplementary materials available to UC agencies are very helpful in using the benchmark listing tabulations, particularly in checking classification changes. One of these is a report on noneconomic changes in employment.[1] This must be submitted by each UC agency with the ES–203 for the previous year. Thus, "noneconomic code changes" effective January 1, 1948, are submitted with the 1947 ES–203. In reporting "noneconomic code changes," total employment for December would be shown for each 3-digit code change. Thus, if the code of 10 firms with 279 employees in December 1947 in industry 739 was changed to industry 514 in 1948, the entry on the table would read as follows:

ORIGINAL CODE	NEW CODE	EMPLOYMENT DECEMBER 1947
739	514	279

In addition to summaries, many UC agencies have lists of the employer serial numbers of accounts involved in noneconomic changes giving the industry codes (new and old, where relevant) and employment for December of the year previous to that in which the code change was effective.

[1] Noneconomic changes in employment are changes due to such noneconomic factors as statutory coverage changes, "noneconomic code changes" (i. e., necessitated by an error or a change in the classification structure), and others.

3.2–6 Changes in State UC Coverage Provisions

In non-UC contract agencies, it is very desirable to have a statement concerning any changes in the coverage provisions of the State UC law since the last benchmark listing was received. Such changes are of two kinds: (1) those incorporated in the law by legislative action and (2) those resulting from court and administrative decisions. State UC agencies frequently have available printed copies of the law with the amendments adopted subsequent to its passage. A copy of this should be obtained and scrutinized for recent changes in coverage provisions. The State UC agency should also be asked to furnish information concerning administrative and court decisions affecting the liability of segments of industry, classes of employees, and large firms.

3.2–7 Listing Tabulations of ES–202 and ES–203 Accounts

Many State UC agencies prepare listing tabulations of the accounts used in their ES–203 and ES–202 tabulations, often by 2- or 3-digit industry. If these are available, they are very useful in checking on delinquency, code changes which took place during the year, and errors of various types.

3.2–8 Economic Code Changes

In addition to classification changes made at the beginning of the year, UC agencies sometimes shift codes at other times of the year. This is especially true of the type of change known as an "economic code change," that is, one involving a firm which converts from one industry to another. If in checking one benchmark listing against an earlier benchmark (discussed in sec. 3.2–9) an industry code change is found, the date of the code change should be ascertained to permit later analysis of possible differences between the State employment estimates and ES–203's. Three possible sources of this information are the materials listed in sections 3.2–5, 3.2–6, and 3.2–7. In case none of these sources is available in a non-UC Contract State office, it will be necessary to write to the UC agency to determine the date of the change.

3.2–9 Editing Benchmark Listings

The following procedure for editing the benchmark listing is outlined primarily for the benefit of non-UC contract agencies. UC contract agencies will adapt the procedure to fit their own situation.

The listing should be checked against the benchmark listing for the previous year to determine if any of the larger accounts are missing from it. If any are missing, a further check should be made to determine: (a) Those which have gone out of business; (b) those which have successor accounts; (c) those involving industry code changes; and (d) those which are delinquent. Employment data for the benchmark period for the last class of accounts should be obtained from UC or other sources, such as the BLS report, and added to the benchmark totals. If no figures are available, an estimate of employment for the firm should be made, and added to the benchmark.

The benchmark tabulation should also be examined for possible errors. Some types of error are duplication of reports and reporting of only one employment figure for the quarter, which may be repeated as constant for all 3 months of the quarter, or included in only 1 month's totals. If such errors are discovered, they should be corrected both on the listings and in the totals. If a firm reports a single figure for all three months of a quarter, and employment figures from another source such as a BLS or State Employment Service report are available, they should be substituted for the UC report. If no employment data from sources other than UC are available, figures for the 3 months should be estimated for the larger firms. Such estimates may be based on employment trends shown by other large firms in the industry. In the case of smaller firms substitution or estimation of employment figures will be necessary only where the UC agency tabulates its report for 1 month of the quarter only, usually the last. In such a situation it is permissible to repeat the UC figure for the other 2 months of the quarter. It should be made certain, however, that the firm was actually in operation during the entire quarter

3.2–9 Editing Benchmark Listings—Continued

under the account number given on the benchmark listing. When a third-quarter benchmark is used, it is important to correct it for any errors resulting from a misinterpretation of the $3,000 provision in the UC law.

3.2–10 Establishing Comparability of Data Reported to UC and BLS

If a large firm reports to both BLS and UC, the comparability of the data furnished the two agencies for the benchmark period should be checked. One major cause of discrepancy is difference in coverage of the two reports, as indicated below:

(a) The BLS report may cover fewer locations than that covered by UC.

(b) The BLS report may include more than one UC account. No adjustment will be needed here if the UC accounts covered are in the same industry. If they are in different industries, a break-down of the BLS report should be obtained, but no adjustment of the benchmark tabulation is required.

(c) The BLS reports may show a finer industrial break-down than the UC account. In such cases the benchmark should be adjusted on the basis of the BLS break-down, and the UC agency should try to get separate reports for future benchmark periods.

(d) One report may include classes of employees not covered by the other. For example, employees of insurance carriers who are paid on a straight commission basis are not covered by UC in many States, while the BLS report includes them. If the BLS report excludes certain classes of employees included by UC no adjustment of the benchmark is required, but an attempt should be made to get the firm to report the additional employees to BLS. If the BLS report includes classes of employees not covered by UC, the BLS report should be substituted in the benchmark. If, however, the exclusion is common to all firms in an industry, as in the case of insurance carriers, an inflation factor should be computed by finding the ratio of the employment of the BLS reporters in the industry to employment in the corresponding UC accounts. This factor should be applied to the UC segment of the benchmark after all other adjustments have been made. Since January 1945, BLS and UC reports have been for the same period of the month, namely, the pay period ending nearest the 15th of the month. Therefore, the employment reports to the two agencies in the benchmark quarter of 1947 should be practically identical, provided they cover the same locations, operations, and classes of employees. If there are any large firms for which BLS and UC receive significantly different reports during the benchmark period, an explanation of the discrepancy should be found and the benchmark adjusted, if necessary. Some possible causes of such variations are inclusion of employees out on strike, inclusion of employees in another State, and errors in reporting.

3.2–11 Matching Benchmark Listings for Successive Years

In matching the benchmark listing with that for the previous year to determine delinquencies, classification changes, new firms, successor accounts, cancellations, etc., only the larger firms should be examined. The accounts to be examined should include all those with more than 500 employees, regardless of industry. In manufacturing industries all firms with more than 100 employees should be checked. For other industries, the minimum size of firm to be checked will vary from State to State and from industry to industry but probably the largest firms having from 30 to 50 percent of the total employment in the industry should be examined. For example, suppose employment in a certain industry had the following distribution:

Industry 89, West Dakota

Size of establishment (number of employees)	Number of establishments	Employment, September 1945	Percent of total employment
Total	111	4,958	100.0
Over 200	3	693	14.0
100–199	12	1,596	32.2
50–99	21	1,323	26.7
Under 50	75	1,346	27.1

3.2–11 Matching Benchmark Listings for Successive Years—Continued

If the 15 accounts with 100 or more employees were selected for checking in this industry, approximately 46 percent of the total employment in this industry would be covered.

3.2–12 Break-down of Benchmarks by Industry

The result of the adjustments described in the preceding sections will give total employment covered by UC in each industry, as corrected for classification, delinquency, and errors of various kinds, for each of the months in the benchmark quarter. Ordinarily, the benchmarks will be prepared by 2-digit industry, and classification adjustments will be carried to that level. In cases where 3-digit industries are published, or estimated separately for inclusion in 2-digit groups, it will be necessary to prepare benchmarks on a 3-digit level.

3.3 SMALL-FIRM ADJUSTMENT

3.3–1 BOASI Data

In many States, employers with fewer than a certain number of employees are exempt from liability to make contributions to the unemployment compensation fund. Employees of such firms will therefore not be included in the UC benchmark totals. Since employment in such firms constitutes a sizable percentage of total employment in many industries, it is necessary to adjust UC employment levels to take into account employment in small firms. All firms in covered industries with one or more employees are subject to contributions under the Old-Age and Survivors Insurance provisions of the Social Security Act, administered as a national program by the BOASI. Therefore, employment reports to that agency form a valuable source of information with regard to the number of workers in small firms.

3.3–2 Procedure

Each year BOASI tabulates employment reported under the OASI act, and the BLS Washington office issues a statement describing suitable procedures for integrating the BOASI data with UC data in such a way as to include in the benchmarks estimates for firms not covered by UC. The procedure varies from year to year as a result of a large number of factors. Important among these are relative timing of the UC benchmark tabulations and the annual BOASI tabulations; methods used by BOASI in converting reported number of wage items to estimated employment; method of handling multi-unit firms; technique for estimating employment of delinquent reporters; and assumptions made regarding the category "presumed not-covered by UC." The BLS statement on this subject is issued each year as far in advance of the preparation of new benchmarks as conditions permit.

3.4 VALIDATION

3.4–1 Worksheets for Preparation of Estimates

The totals for each month of the benchmark quarter for each 2-digit industry (or 3-digit industry, if needed for publication or weighting) should be posted to a worksheet preparatory to derivation of the estimates. The worksheet should provide spaces for each of the following entries: (a) the unadjusted benchmark totals; (b) deductions due to classification changes; (c) additions due to classification; (d) additions for delinquencies; (e) other corrections; (f) benchmark totals adjusted for (b), (c), (d), and (e); (g) the small-firm adjustment; and (h) the final estimate for the months of the benchmark quarter. UC contract agencies may be able to simplify this worksheet if the adjustments in (b) through (e) are known to have been effected prior to the initial tabulation of benchmark totals and are recorded elsewhere in some systematic manner which makes them easily accessible.

3.4–2 Charting Various Series

The original benchmark totals should be plotted on a chart with the ES–203 and ES–202

3.4–2 Charting Various Series—Continued

data and with the BLS estimates for the same period. The chart should show these data for a period of several years. This chart is an excellent device for observing roughly at a glance what adjustments such as those for classification, delinquency, and errors will be needed in the original benchmark data. The adjusted benchmark totals should also be plotted and compared against each of the other series. If other employment series are available, such as Census series, they should be included on the chart and compared with the benchmark data.

For additional discussion of the use of charts, see vol. II, sections 4.6–2 and 7.7.

3.5 PRODUCTION AND NONPRODUCTION WORKERS

3.5–1 General

In the manufacturing industries, separate series for production and nonproduction worker employment are required. Since employment trends in production worker employment are often quite different from nonproduction worker trends, preparation of separate estimates for these classes of workers will result in better figures for total employment. Also, statistics prepared by the Bureau on pay rolls, man-hours, average hours per week, and average hourly earnings for these industries are based on pay roll and man-hour data for production workers only. In most manufacturing industries, production workers are by far the largest class of workers, and the relation between pay received and hours worked is much more direct than in the case of nonproduction workers. For these reasons, figures on pay rolls and man-hours for production workers are more in demand than those for nonproduction workers or all employees.

3.5–2 Preparing Separate Benchmarks of Production and Nonproduction Workers

The ratio of production workers to total employment must be computed from the BLS sample. The preliminary and regular "production worker – all employee" tabulations for a specific benchmark month should be inspected and, if possible, the "better" figure (see sec. 3.5–3 for advice on how to select the "better" figure) for the ratio of production workers to all employees selected. If the "better" figure cannot be determined, then the estimate for production workers for the benchmark month in question should be obtained by multiplying the benchmark by the ratio of production workers to total employment as calculated from the combined "production worker – all employee" tabulations for the two comparisons in which the month in question occurs. For example, if the production and nonproduction series are to begin with March 1947, the production worker estimate is obtained by multiplying the March 1947 benchmark by the ratio of production workers to all employees for March 1947 which is obtained from the combined BLS sample tabulations of "production workers – all employees" for February–March and March–April 1947. The nonproduction worker estimate is the residual between total and production worker employment. The following example illustrates the procedure:

WEST DAKOTA, INDUSTRY 23

(a) Benchmark, March 1947—18,978.

(b) BLS sample, "production workers – all employee" comparison:

Year and month	Production workers		All employees	
	Previous month	Current month	Previous month	Current month
1947				
February–March	7,723	7,906	9,847	9,917
March–April	7,728	7,687	9,801	9,751

(c) Sum of production workers for March 1947 as obtained from February–March and March–April comparisons =7,906+7,728=15,634.

(d) Sum of all employees for March 1947 as

3.5–2 Preparing Separate Benchmarks of Production and Nonproduction Workers—Continued

obtained from February–March and March–April comparisons =9,917+9,801=19,718.

(e) Ratio of production workers to all employees for March 1947=$\frac{15,634}{19,718}$=0.7929

(f) Estimated production workers for March 1947=18,978×0.7929=15,048.

(g) Estimated nonproduction workers for March 1947=18,978−15,048=3,930.

In order to prepare estimates of production and nonproduction workers for the other two months of the benchmark quarter, link-relatives are computed from the BLS production worker samples for the last two months of the quarter. To get the production worker estimate for the second month, divide the production worker estimate for the third month of the quarter by the link-relative for the third month. Then the production worker estimate for the first month is prepared in a similar manner. The nonproduction worker estimates are computed as a residual between total employment and production workers. The following example illustrates the procedure:

WEST DAKOTA, INDUSTRY 23

(a) Total employment, first quarter 1947, by months:

January 1947	*February 1947*	*March 1947*
18,687	18,562	18,978

(b) Production worker employment March 1947—15,048.

(c) BLS sample, production worker comparison:

Year and month	Production workers	
	Previous month	Current month
1947		
January–February	8,109	7,957
February–March	8,046	8,212

(d) Link-relative, January–February 1947=$\frac{7,957}{8,109}$=0.9813.

(e) Link-relative, February–March 1947=$\frac{8,212}{8,046}$=1.0206.

(f) Estimated production worker employment, February 1947=$\frac{15,048}{1.0206}$=14,744.

(g) Estimated production worker employment, January 1947=$\frac{14,744}{0.9813}$=15,025.

(h) Estimated nonproduction worker employment, February 1947=18,562−14,744=3,818.

(i) Estimated nonproduction worker employment, January 1947=18,687−15,025=3,662.

3.5–3 Methods for Special Cases

It is important that the ratio used to calculate the estimate for production workers in the benchmark month should not reflect any unusual distribution of production and nonproduction workers. The ratio of production workers to all employees should be calculated for two or three months before and after the benchmark month for both the previous and current month. For example, if the production worker series is to be revised to a March 1947 benchmark, ratios might be calculated as follows:

TABULATION:	RATIOS CALCULATED FOR:
December 1946–January 1947.	December 1946 and January 1947.
January – February 1947.	January and February 1947.
February – March 1947.	February and March 1947.
March–April 1947.	March and April 1947.
April–May 1947.	April and May 1947.

If the ratios show only moderate variation over this 5- to 7-month period, the ratio in the benchmark month may be accepted as suitable for effecting the allocation between production and nonproduction workers. If the ratio for the benchmark month shows marked variation

3.5–3 Methods for Special Cases—Continued

from the ratios for the other months it may be due in the first instance to delinquencies or errors in the BLS tabulation. These should be corrected and a new ratio calculated. Secondly, the ratio may differ because of an unusual distribution of production or nonproduction workers in the sample due to seasonal or other factors. In such a case it is proper to use the ratio for the benchmark month, provided the sample is reasonably representative. This is also true if the ratio itself shows considerable variation from month to month, while the ratios for the same month calculated from the current and previous months' tabulations are in close agreement. The series of ratios should also be examined for breaks due to addition or dropping out of firms in the sample. If these are due merely to changes in the sample itself, that is, not to firm births and deaths, a ratio based on the larger and more representative sample should be computed and projected to the benchmark month by use of a chain index based on the BLS production worker sample. The following example illustrates the procedure:

WEST DAKOTA, INDUSTRY 37

(a) "Production worker – all employee" sample:

Year and month	Number of establishments	Production workers		All employees	
		Previous month	Current month	Previous month	Current month
1947					
January–February	79	22,917	22,520	26,157	25,698
February–March	70	19,248	19,585	23,412	23,852
March–April	69	19,410	19,718	23,408	23,651

(b) Ratio of production workers to all employees:

From January–February comparison	January	0.8761	February	0.8763
From February–March comparison	February	0.8221	March	0.8303
From March–April comparison	March	0.8271	April	0.8337

Note the break in the series of ratios between the January–February comparison and the February–March comparison due to the change in sample coverage.

(c) Ratio of production workers to all employees to be used in preparing production worker estimates for March 1947:

$$0.8763\times\frac{0.8303}{0.8221}=0.8850$$

3.5–4 Administrative Office Employment

In some cases, administrative office employment is reported in subaccounts of UC multiple-unit reports. If the administrative office employment data are not reported to the BLS, but are available from the UC reports, they should be subtracted from the benchmarks before the production worker estimates are prepared and later added back into the nonproduction worker benchmark.

3.5–5 Use of Census Data

Occasionally, it will not be possible in a manufacturing industry where production and nonproduction worker estimates are required to use the BLS sample in preparing them, because the sample is nonexistent, too small, or highly unrepresentative. In these cases, until such time as an adequate sample can be developed, the ratio between production workers and total employment derived from the most recent Census of Manufactures data, or the BLS ratio for the industry in a nearby State where similar economic and industrial conditions prevail, may be used in preparing the production worker estimates.

3.6 HISTORICAL NOTE

3.6–1 Benchmarks, 1943–45

When the State Employment Statistics Program was begun in January 1945, it was planned to base the employment series on a third quarter 1943 benchmark. Since manufacturing estimates for many States were not completed prior to the fall of 1945, after the ES–203's for 1944 were run, it was possible to adjust the series to 1944 benchmarks before they were published. Similarly, many nonmanufacturing series were

3.6–1 Benchmarks, 1943–45—Continued

not completed until the latter part of 1946, and these series were adjusted to 1944 and 1945 before publication. Most other series were revised to 1944 and 1945 benchmarks when they became available.

Listing tabulations, as described in section 3.2–1, were generally used in preparing benchmarks for 1943, 1944, and 1945. In some cases, however, particularly for 1944 and 1945, the ES–203 was used. This was supplemented by listings of accounts included in the ES–203, which were prepared by the UC agencies for their own use, and by special listing tabulations of delinquent accounts.

3.6–2 Classification Check: 1943 Benchmark

An extensive check on the classification of firms appearing in the 1943 benchmark was made. All the larger firms and all those included in the BLS sample were included in this review. The objective of this project was to establish comparability in industry classification between the State employment estimates and the national employment series. In the latter, in order to preserve continuity and comparability with earlier series, individual firms were classified according to their prewar or peacetime activity. For manufacturing, this was accomplished by accepting the classification of the firm assigned by the 1939 Census of Manufactures as correct. If the firm was new since 1939, an attempt was made to determine its products at the time it began operations. For nonmanufacturing, no information on the Census classification of individual firms was available. The industry codes assigned by UC to accounts in nonmanufacturing industries were compared with those assigned by BOASI in its 1942 refiling project and with other sources in order to determine whether the UC codes were correct. The codes selected as correct in connection with the preparation of the 1943 benchmark were also used in preparing the 1944 and 1945 benchmarks.

3.6–3 Small-Firm Adjustment, 1943–45 Benchmarks

The small-firm adjustment for September 1943 was based on a special tabulation of noncovered employment for that month prepared by BOASI. The Washington office corrected this tabulation for delinquency, and on the basis of the best information available, allocated by industry the employment in firms to which BOASI had assigned no industry code. The regional offices were also furnished, for each State, a sample listing of firms reporting to BOASI. This was checked against the addressograph card files of UC accounts to determine the relative proportion of omissions and duplication in the noncovered segment. Because of matching difficulties and the high sampling variance in firms over the cut-off point, the results of the check were inconclusive. The small-firm multiplier for each 2-digit industry was computed from the UC benchmark totals (as corrected for classification, delinquencies, and errors) and the BOASI noncovered totals (as adjusted by the Washington office). This multiplier was used with the 1943, 1944, and 1945 benchmarks.

SECTION 4

Current Estimates

4.1 GENERAL

4.1–1 Link-Relatives

The problem of estimating levels of employment for months for which benchmarks are not available is discussed in this section of the *Manual*. As stated previously, a benchmark is a complete employment count (or accurate estimate) for a particular month or group of months. The first step in preparing estimates for other months is to construct a series of link-relatives which approximate the month-to-month movements (trends) of the series for which estimates are required. The next step is to chain this series of link-relatives to the benchmark to obtain estimates of total employment.

4.1–2 State Sample Relatives Preferred

In preparing benchmarks, the principal objective is complete coverage. In making monthly estimates, however, the objective is to measure monthly trends in the series as precisely as possible from a sample group of establishments small enough to permit expeditious handling. The BLS uses several different devices to project the monthly trends:

(a) Link-relatives derived from the BLS State sample.

(b) Link-relatives derived from other employment data (frequently ES–202 data).

(c) Link-relatives derived from related series of nonemployment data.

(d) Extrapolation of the benchmarks: e. g., by an index based on known seasonal movement; perhaps even as a constant.

Of these, the preferred method, and the one now used in manufacturing industries and in many nonmanufacturing industries, is that in which estimates are projected by means of link-relatives derived from the BLS State sample. The objective, in the State Program, is to extend the use of this method, or a similar method employing BLS sample establishments to virtually all the industries for which estimates are prepared, while other methods, not involving the use of BLS establishment data, would be used only in unusual cases, as necessary.

4.1–3 Scope of Section

Primary emphasis, in this section of the *Manual*, is laid on the basic BLS method of projecting estimates through the use of monthly comparisons of identical establishments in the BLS sample. The method in which ES–202's are utilized for projecting estimates is the most frequently used substitute for the BLS sample establishment method, and is also discussed in this section. Other methods are discussed in other sections. Specifically, estimating procedures for the construction industry are treated in volume II, section 9; for public employment in volume II, section 10; and for other industries requiring special treatment in volume II, section 11.

4.2 STANDARD BLS METHOD OF PREPARING EMPLOYMENT ESTIMATES

4.2–1 Tabulations

(a) RECOMMENDED FORM AND DETAIL. Employment data reported by the sample establishments must be tabulated in convenient form for use in computing the month-to-month movements in the industry series. While the tabulations may vary in form and in detail, according to the needs of the Contract States, the following is recommended as a general minimum:

(1) There should be a tabulation which shows for each 2-digit industry (i) the number of establishments included and the number of production workers (or nonsupervisory employees and working supervisors) reported for the preceding and current months; (ii) the number of establishments reporting production workers (or nonsupervisory, etc.) and all employees in both months, followed by the production workers (or nonsupervisory, etc.) reported by these establishments in the preceding and current months and all employees reported in the preceding and current months.

(2) There should be a similar tabulation showing the same items by 3-digit industry with totals by 2-digit industry.

(3) There should be a listing-tabulation showing data for individual reports within each 3-digit industry, and 3-digit totals. Within each 3-digit industry, the cards should be listed by report number (see 6.3–1). In this basic listing-tabulation, it would be helpful if some sign, like an asterisk or the credit symbol (CR) in an appropriate field is used to indicate that certain items on the detail card are not included in the total. For example, an establishment reported production workers but failed to report all employees for the current month; all employees for the previous month were reported and are listed. A "CR" following the number of establishments field in the production-worker-all-employee comparison may be used to indicate that data for this report are not included in the total of establishments reporting both production workers and all employees for both months. Data for this establishment would, of course, be included in the totals for the production-worker comparison. It will also prove helpful if comment codes are listed in this basic listing.

(b) EDITING. The tabulations described in the preceding paragraphs should be edited for listing and tabulating errors and corrected where necessary.

(c) ADEQUATE SAMPLE. As a precaution against obtaining estimates for any month from an inadequate sample, a list of reporters essential to an adequate sample for each 2-digit industry should be drawn up. In many industries it may be necessary to have only a majority of the essential firms reporting, but in some it may be necessary to have data for one particular firm or a few essential firms before a reliable estimate can be made. A list of delinquent reporters should be prepared each month, and the data for delinquent essential firms should be obtained from these firms or from another government agency, such as the State Employment Service, if at all possible. In certain instances it may be necessary to extrapolate employment estimates for delinquent reports if the data cannot be obtained.

4.2–2 Preparing the Estimates

In the manufacturing industries production and nonproduction worker estimates are projected separately. Estimates of all employees are obtained by adding the estimates of production and nonproduction workers. In the case of those nonmanufacturing industries reporting production workers and all employees (mining, laundries, cleaning and dyeing, crude petroleum and natural gas, and telephone [1]), the Contract State offices may project production and nonproduction workers as separate series. However, this is an optional procedure. With respect to those nonmanufacturing industries reporting nonsupervisory and all employees, total employment estimates only are projected.

[1] Employment in this industry is reported for employees subject to the Fair Labor Standards Act and all employees.

4.2–2 Preparing the Estimates—Continued

Projection is accomplished by use of link-relatives computed from the all-employee sample data. However, if for any industry in a State, the reporting of all employees is inadequate, the link may be formed by adding all employees for firms reporting them to nonsupervisory employees and working supervisors for firms not reporting all employees in the two-month matched-firm comparison. Procedures are outlined below for projecting estimates for manufacturing industries only. The method to apply when only total employment is to be projected requires no separate illustration. The first step in the procedure is to resolve the benchmark into its production worker and nonproduction worker components, as described in section 3, volume II, above. Thereafter, the procedure to be followed is that described for the hypothetical example used in the following paragraphs.

(a) Assume that the benchmark figures for the last month of the benchmark quarter and the sample tabulation after adjustment for any errors and for delinquents, show the following data:

STATE: WEST DAKOTA.
INDUSTRY: SIC 38.
MARCH 1947 BENCHMARKS:

ALL EMPLOYEES	=16,481
PRODUCTION WORKER COMPONENT	=11,761
NONPRODUCTION WORKER COMPONENT	=4,720

PART I.—*Establishments which report all employees and production workers*

Number of establishments	123
All employees:	
March 1947	9,874
April 1947	11,293
Production workers:	
March 1947	7,046
April 1947	8,859
Nonproduction workers:	
March 1947	2,828
April 1947	2,434

PART II.—*Establishments which report only production workers including plants shown in part I*

Number of establishments	168
Production workers:	
March 1947	9,172
April 1947	10,152

(b) Compute the link-relative for production workers for the current month by dividing the current month figure in part II by the preceding month figure. In the example above, the link-relative for production workers for April 1947 is 10,152/9,172=1.1068.

(c) Multiply the production worker component in the benchmark month by the production worker link-relative for the current month. The product is the current month estimate of production workers. In our example, the April 1947 estimate of production workers is 11,761×1.1068=13,017.

(d) Compute the link-relative for nonproduction workers for the current month by dividing the current month figure in part I of the tabulation by the preceding month figure. In the example above, the link-relative for nonproduction workers for April 1947 is 2,434/2,828=0.8607.

(e) As a check, the link-relative for production workers should also be computed from part I. This figure should agree closely with the production worker link-relative computed from part II. In the example above, the link-relative for production workers in part I of the tabulation is 8,859/7,046=1.2573. This figure is in marked disagreement with the production worker link-relative of 1.1068 obtained in (b) from part II of the tabulation. The disagreement indicates that some establishments which did not report all employees had production worker trends unlike those which did. In this event, an attempt should be made to obtain nonproduction worker figures from as many as possible of the establishments which did not report them. If this information cannot be secured, a correction should be applied to the link-relative for nonproduction workers. This correction is based on the assumption that the omission of the establishments which did not report all employees caused the same bias in the nonproduction worker trend as in the production worker trend. The following steps in the procedure explain the recommended correction:

(f) Compute the ratio of the production worker link-relative in part II to the production worker link-relative in part I. In the ex-

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4.2–2 Preparing the Estimates—Continued

ample above, this ratio is 1.1068/1.2573=0.8803.

(g) Multiply the nonproduction worker link-relative obtained from part I (sec. d) by the production worker link-relative ratio (sec. f). The product is the corrected nonproduction link-relative for the current month. In the example above, the corrected nonproduction worker link-relative for April 1947 is 0.8607×0.8803=0.7577.

(h) Multiply the nonproduction worker component of the benchmark month by the corrected nonproduction worker link-relative for the current month (sec. g) to obtain the estimate of nonproduction workers in the current month. In the example above, the estimate of nonproduction workers for April 1947 is 4,720×0.7577=3,576.

(i) Add the current month estimates of production workers (sec. c) and nonproduction workers (sec. h) to obtain the current month estimate of all employees. In the example above, the April 1947 estimate of all employees is 13,017+3,576=16,593.

(j) In preparing estimates for succeeding months, the estimates of production workers and nonproduction workers for the first post-benchmark month are treated as benchmarks and are projected, separately, as in the above illustration, by means of the production worker and nonproduction worker link-relatives for the second post-benchmark month. The latter estimates are then treated as benchmarks for projecting the estimates of the third post-benchmark month, and so on. All-employee estimates for each month are obtained by adding the production worker and nonproduction worker estimates.

4.3 HANDLING OF ATYPICAL FIRMS

4.3–1 Criteria for Atypical Firms

The estimating procedures described above do not reflect employment changes accurately when the sample includes relatively large firms whose employment trends are significantly at variance with those exhibited by the entire industry of which they are a part. Such firms are called *atypical firms*. Thus, if a large establishment in an industry goes out of business permanently, the application of the standard estimating procedures would have an exaggerated effect on the monthly movements of employment, if the reporting sample does not cover a substantial portion of total employment in the industry. (On the other hand, if the employment in the sample constitutes a large proportion of total employment in the industry, the large establishment in question is not considered atypical.) Strikes, or shut-downs for any other cause in one important plant in an industry in which the reporting sample does not constitute a substantial portion of total employment are other examples of atypical employment changes. Special procedures for estimating employment where atypical firms are included in the sample are discussed in the following paragraphs.

However, in certain cases atypical handling is not usually indicated:

(a) In declining industries, such as the carriage and wagon industries (which were formerly surveyed) and the piano and organ industries (which suffered a severe set-back several years ago), the reports from permanently closed plants are used in the identical establishment comparisons at the time of their closing. If the reports from such firms were not included in the identical establishment tabulations, the level of employment might show very little change from month to month, which would not be representative of the true situation.

(b) In those establishments which operate only for a certain number of months during the year, such as the canning industry, the drop to zero in employment when the firm discontinues operation at the close of the season and the increase from zero to an employment figure reported in the first month of operation are used in the identical establishment comparisons. Otherwise, the industry totals might not reflect

4.3–1 Criteria for Atypical Firms—Continued

the actual changes in the industry. Yet if the sample is inadequate, and different firms discontinue operations in different months, atypical handling may still be advisable.

4.3–2 Estimating Total Employment When Atypical Firms Are Included in the Sample

For industries in which only total employment is estimated, the method used when atypical firms are present in the sample differs from the standard method in that the all-employee total of the atypical sample firms is deducted from the previous month's estimate and from the sample figures used to project the estimate for the current month. The current month estimate (exclusive of atypical firms) is then computed in the usual way. Lastly, the all-employee total of the atypical sample firms in the current month is added back to this estimate to obtain the complete estimate. The following hypothetical example illustrates the method to be used in such instances. (In the discussion in this paragraph and in the example, it is assumed that all or most of the sample establishments report all employees as well as nonsupervisory employees and working supervisors, so that establishments not reporting all employees are ignored. If the sample of firms reporting all employees is inadequate, then the procedure outlined in the example may be followed using a total of all employees for firms reporting them plus nonsupervisory employees and working supervisors for firms not reporting all employees.)

The following notations are used in the example below:

E=Estimate of total employment
e=Total of "all employees" in the sample
"e"=Number of "all employees" in atypical firms in the sample

Subscript $_0$ (e. g., e_0) refers to figures for the previous month; subscript ^{1} (e. g., e_1) refers to figures for the current month.

The formula for obtaining the estimate of total employment in the current month is:

$$E_1=(E_0-\text{“}e_0\text{”})\left(\frac{e_1-\text{“}e_1\text{”}}{e_0-\text{“}e_0\text{”}}\right)+\text{“}e_1\text{”}$$

EXAMPLE

	Previous month	*Current month*
Estimated total employment	E_0=200,000	To be computed: E_1
Number of "all employees" in sample	e_0=70,000	60,000=e_1
Number of "all employees" in atypical firms in sample	"e_0"=5,000	350="e_1"

$$E_1=(200{,}000-5{,}000)\left(\frac{60{,}000-350}{70{,}000-5{,}000}\right)+350$$
$$=(195{,}000\times 0.9177)+350=178{,}952+350=179{,}302$$

4.3–3 Estimating Production and Nonproduction Workers When Atypical Firms Are Included in the Sample

(a) The problem of making separate estimates of production workers and nonproduction workers is complicated to some extent when the reporting establishments in the sample include one or more atypical firms. The following situations are possible when atypical firms are included in the sample:

(1) All reporting establishments report all employees as well as production workers. Thus, figures for nonproduction workers as well as for production workers are available for all establishments. The three remaining situations occur when some of the reporting establishments fail to report the all-employee figure.

(2) All of the atypical firms are included among those reporting both production workers and all employees.

(3) One or more, but not all of the atypical firms are included in the group reporting both production workers and all employees.

(4) None of the atypical firms are included in the group reporting both production workers and all employees.

The hypothetical examples below have been set up to treat each of the four types of situations described above. These examples illustrate the methods of obtaining estimates of production workers, nonproduction workers, and all employees (the latter being the sum of production workers and nonproduction workers) in such situations.

4.3–3 Estimating Production and Nonproduction Workers When Atypical Firms Are Included in the Sample—Con.

(b) Following are the notations used in the examples below:

A=Estimated number of all employees.
P=Estimated number of production workers.
N=Estimated number of nonproduction workers.

Sample firms reporting production workers and all employees:

a=Number of all employees in sample.
p=Number of production workers in sample.
n=Number of nonproduction workers in sample.
"a"=Number of all employees in atypical firms in sample.
"p"=Number of production workers in atypical firms in sample.
"n"=Number of nonproduction workers in atypical firms in sample.

All firms in sample:

${}_sP$=Number of production workers in sample.
"${}_sP$"=Number of production workers in atypical firms in sample.

Subscript $_0$ (e. g., P_0) refers to figures for the previous month; subscript $_1$ (e. g., P_1) refers to figures for the current month.

(c) The formula for obtaining the production worker estimate for the current month, when atypical firms are present, is:

$$P_1=(P_0-\text{"}{}_sP_0\text{"})\left(\frac{{}_sP_1-\text{"}{}_sP_1\text{"}}{{}_sP_0-\text{"}{}_sP_0\text{"}}\right)+\text{"}{}_sP_1\text{"} \quad (1)$$

This formula holds for each of the four types of situations. (It may be noted, in addition, that the formula holds for the case where no atypical firms are included in the sample, inasmuch as the "${}_sP$" 's are equal to zero and the formula reduces to the familiar link-relative projection of the current estimate.)

(d) The formula for obtaining the nonproduction worker estimate for the current month, when atypical firms are present, is:

$$N_1=(N_0-\text{"}n_0\text{"})\left[\left(\frac{n_1-\text{"}n_1\text{"}}{n_0-\text{"}n_0\text{"}}\right)\left(\frac{P_1-\text{"}p_1\text{"}}{P_0-\text{"}p_0\text{"}}\Big/\frac{p_1-\text{"}p_1\text{"}}{p_0-\text{"}p_0\text{"}}\right)\right]+\text{"}n_1\text{"} \quad (2)$$

This formula holds for each of the four types of situations listed above and illustrated below. It is interesting to note that this formula also holds for the case where no atypical firms are included in the sample, inasmuch as the "n" 's and "p" 's=o and $\frac{P_1}{P_0}=\frac{{}_sP_1}{{}_sP_0}$; thus the formula reduces to the method used for projecting nonproduction worker estimates, by means of the corrected link-relative of nonproduction workers in the sample, as described in section 4.2–2 (a) to (i).

SITUATION (1). All reporting establishments in the sample report both production workers and all employees.

Estimates	Previous month	Current month
All employees	A_0=14,517	To be computed A_1
Production workers	P_0=12,259	To be computed P_1
Nonproduction workers	N_0=2,258	To be computed N_1
Sample firms reporting production workers and all employees		
Production workers	p_0=8,761	7,885=p_1
Nonproduction workers	n_0=1,503	1,560=n_1
Atypical production workers	"p_0"=847	80="p_1"
Atypical nonproduction workers	"n_0"=123	15="n_1"
All sample firms		
Production workers	${}_sP_0$=8,761	7,885=${}_sP_1$
Atypical production workers	"${}_sP_0$"= 847	80="${}_sP_1$"

Since all firms in the sample reported production workers and all employees, the production worker figures in this group are the same as in the preceding group, i. e., ${}_sP$=p, and "${}_sP$"="p".

$$P_1=(12{,}259-847)\left(\frac{7{,}885-80}{8{,}761-847}\right)+80$$

$$=(11{,}412\times0.9862)+80=11{,}255+80=11{,}335$$

$$N_1=(2{,}258-123)\left[\left(\frac{1{,}560-15}{1{,}503-123}\right)\left(\frac{11{,}335-80}{12{,}259-847}\Big/\frac{7{,}885-80}{8{,}761-874}\right)\right]+15$$

$$=(2{,}135)\times(1.0510)\times(1.0)+15=2{,}244+15=2{,}259$$

$$A_1=P_1+N_1=11{,}335+2{,}259=13{,}594$$

NOTE.—Observe that the term, $\left(\frac{P_1-\text{"}p_1\text{"}}{P_0-\text{"}p_0\text{"}}\right)\Big/\left(\frac{p_1-\text{"}p_1\text{"}}{p_0-\text{"}p_0\text{"}}\right)$ in formula (2) equals 1.0000 in situation (1) and may be omitted from the formula, although some analysts may prefer to retain it as a check on the computations. The explanation for this result is that $p={}_sP$, and "p"="${}_sP$", inasmuch as all sample firms report both production workers and all employees. Accordingly, the term above becomes $\left(\frac{P_1-\text{"}{}_sP_1\text{"}}{P_0-\text{"}{}_sP_0\text{"}}\right)\Big/\left(\frac{{}_sP_1-\text{"}{}_sP_1\text{"}}{{}_sP_0-\text{"}{}_sP_0\text{"}}\right)$.

Moreover, formula (1) after transposing terms and dividing through by (P_0−"${}_sP_0$"), becomes $\frac{P_1-\text{"}{}_sP_1\text{"}}{P_0-\text{"}{}_sP_0\text{"}}=\frac{{}_sP_1-\text{"}{}_sP_1\text{"}}{{}_sP_0-\text{"}{}_sP_0\text{"}}$. Hence, the term in formula (2) is equal to 1.0000.

SITUATION (2): Some reporting establishments fail to report all employees, and all of the atypical firms are included in the group reporting both production workers and all employees.

Estimates	Previous month	Current month
All employees	A_0=14,517	To be computed A_1
Production workers	P_0=12,259	To be computed P_1
Nonproduction workers	N_0= 2,258	To be computed N_1
Sample firms reporting production workers and all employees		
Production workers	p_0=7,371	7,348=p_1
Nonproduction workers	n_0=1,387	1,370=n_1
Atypical production workers	"p_0"= 847	80="p_1"
Atypical nonproduction workers	"n_0"= 123	15="n_1"
All sample firms		
Production workers	${}_sP_0$=8,761	7,885=${}_sP_1$
Atypical production workers	"${}_sP_0$"= 847	80="${}_sP_1$"

$$P_1=(12{,}259-847)\left(\frac{7{,}885-80}{8{,}761-847}\right)+80$$

$$=(11{,}412\times0.9862)+80=11{,}255+80=11{,}335$$

$$N_1=(2{,}258-123)\left[\left(\frac{1{,}370-15}{1{,}387-123}\right)\left(\frac{11{,}335-80}{12{,}259-847}\Big/\frac{7{,}348-80}{7{,}371-847}\right)\right]+15$$

$$=(2{,}135)\times(1.0720)\times(0.9862/1.1140)+15$$

$$=(2{,}135\times1.0720\times0.8853)+15=2{,}026+15=2{,}041$$

$$A_1=P_1+N_1=11{,}335+2{,}041=13{,}376$$

SITUATION (3): Some reporting establishments fail to report all employees and one or more but not all of the atypical firms are included in the group reporting both production workers and all employees.

Estimates	Previous month	Current month
All employees	A_0=14,517	To be computed A_1
Production workers	P_0=12,259	To be computed P_1
Nonproduction workers	N_0=2,258	To be computed N_1
Sample firms reporting production workers and all employees		
Production workers	p_0=7,371	7,348=p_1
Nonproduction workers	n_0=1,387	1,370=n_1
Atypical production workers	"p_0"=238	30="p_1"
Atypical nonproduction workers	"n_0"=70	13="n_1"
All sample firms		
Production workers	${}_sP_0$=8,761	7,885=${}_sP_1$
Atypical production workers	"${}_sP_0$"=847	80="${}_sP_1$"

$$P_1=(12{,}259-847)\left(\frac{7{,}885-80}{8{,}761-847}\right)+80$$

$$=(11{,}412\times0.9862)+80=11{,}255+80=11{,}335$$

$$N_1=(2{,}258-70)\left[\left(\frac{1{,}370-13}{1{,}387-70}\right)\left(\frac{11{,}335-30}{12{,}259-238}\Big/\frac{7{,}348-30}{7{,}371-238}\right)\right]+13$$

$$=(2{,}188)\times(1.0304)\times(0.9404/1.0259)+13$$

$$=(2{,}188\times1.0304\times0.9167)+13=2{,}067+13=2{,}080$$

$$A_1=P_1+N_1=11{,}335+2{,}080=13{,}415$$

SITUATION (4): Some reporting establishments fail to report all employees and none of the atypical firms are included in the group reporting both production workers and all employees.

Estimates	Previous month	Current month
All employees	A_0=14,517	To be computed A_1
Production workers	P_0=12,259	To be computed P_1
Nonproduction workers	N_0= 2,258	To be computed N_1
Sample firms reporting production workers and all employees		
Production workers	p_0= 7,371	7,348=p_1
Nonproduction workers	n_0= 1,387	1,370=n_1
Atypical production workers		
Atypical nonproduction workers		
All sample firms		
Production workers	${}_sP_0$= 8,761	7,885=${}_sP_1$
Atypical production workers	"${}_sP_0$"= 847	80="${}_sP_1$"

$$P_1=(12{,}259-847)\left(\frac{7{,}885-80}{8{,}761-847}\right)+80$$

$$=(11{,}412\times0.9862)+80=11{,}255+80=11{,}335$$

$$N_1=(2{,}258-0)\left[\left(\frac{1{,}370-0}{1{,}387-0}\right)\left(\frac{11{,}335-0}{12{,}259-0}\Big/\frac{7{,}348-0}{7{,}371-0}\right)\right]+0$$

$$=(2{,}258)\times(0.9877)\times(0.9246/0.9969)$$

$$=(2{,}258\times0.9877\times0.9275)=2{,}068$$

$$A_1=P_1+N_1=11{,}335+2{,}068=13{,}403$$

4.4 OTHER BLS PROCEDURES FOR PROJECTING CURRENT ESTIMATES

This space reserved for presentation of other BLS procedures for projecting current estimates.

4.5 USE OF UC DATA TO PROJECT CURRENT ESTIMATES

4.5–1 General

It was noted previously (sec. 4.1–2) that unemployment compensation data (among other types of employment data) are sometimes used to project current employment estimates. The unemployment compensation data so used are available (1) in the UC annual report, ES–203, which provides employment data by industry for each month of the year; and (2) in the UC quarterly report, ES–202, which contains the same basic data as the anual report, for the current quarter and for the first month of the previous quarter, for a group of identical establishments. The ES–202 reports are due on the 15th of the fourth month after the end of the reference quarter. In the examples in 4.5–3, an extra month is allowed for delay in preparing this report, reviewing, etc.; if this month is not needed, State Program estimates based on the ES–202's will be moved up a month. The ES–203 report is due on July 31 following the year of reference and should normally be available for all States by January of the following year.

4.5–2 Conditions Under Which UC Data Are Used

Mention has already been made of the fact that UC data possess certain shortcomings insofar as their use in projecting current estimates is concerned. Principal among these are changes in coverage provisions from one year to another in some States; the use in preparing contributions reports of industrial classification practices different from those of the BLS; the "20-week provision"; and the time-lag in the preparation of the UC reports. Despite these shortcomings the UC data possess definite value and are used for projecting current estimates in two types of cases:

(a) Where BLS has no sample.

(b) Where the BLS sample is of doubtful quality and cannot be relied upon for good estimates.

4.5–3 General Instructions for Use of ES–202 in Projecting Estimates

The general instructions for the use of the ES–202 report in projecting estimates and revising the estimates are as follows:[2]

(a) To illustrate the procedure for a period of months, it is assumed that the adjustment to a first quarter 1947 benchmark was completed in February 1948 (the first quarter 1947 UC benchmark listing should have been available in November 1947). By March 15, 1948, therefore, the following should have been completed: benchmarks for January, February, and March, 1947; estimates for April through September 1947 derived from the ES–202's; and estimates for October 1947 through January 1948 projected by the BLS-State sample. (It is assumed for the purposes of this discussion that some sample is available. If not, substitute "extrapolation" for "State tabulation.")

(b) MARCH 15, 1948.

(1) Compute second estimate for January, using final State tabulation.

(2) Compute first estimate for February, using preliminary State tabulation.

(c) APRIL 15, 1948.

(1) Compute second estimate for February, using final State tabulation.

(2) Compute first estimate for March, using preliminary State tabulation.

(d) MAY 15, 1948.

(1) The fourth quarter 1947 ES–202 is available. Derive worksheet estimates for October, November, and December, 1947 by use of ES–202, tying the estimates to the adjusted worksheet estimate for September 1947. Do not issue these new worksheet estimates, however, unless they are significantly different from the old estimates.

(2) Project the following new worksheet estimates: Third estimates for January and Febru-

[2] The specific handling of a particular ES–202 report is discussed in the following section (sec. 4.5–4).

4.5–3 General Instructions for Use of ES–202 in Projecting Estimates—Continued

ary 1948; second estimate for March. Project the first estimate for April. Compare the new February and March estimates with the old and revise to the new estimates.

Note.—The January worksheet estimate will not be published unless it differs significantly from the latest published estimate for that month. Publication of the February estimate is optional.[3]

(e) JUNE 15, 1948.

(1) Compute second estimate for April, using final State tabulation.

(2) Compute first estimate for May, using preliminary State tabulation.

(f) JULY 15, 1948.

(1) Compute second estimate for May, using final State tabulation.

(2) Compute first estimate for June, using preliminary State tabulation.

(g) AUGUST 15, 1948.

(1) The first quarter 1948 ES–202 is available. Proceed as in May, obtaining new worksheet estimates for January, February, and March, 1948; third worksheet estimates for April and May; second worksheet estimate for June; and first estimate for July. Issue the new May and June estimates and the July estimates, but not the ones for January through April unless they differ significantly from the old ones.

(h) SEPTEMBER 15, 1948.

(1) Compute second estimate for July, using final State tabulation.

(2) Compute first estimate for August, using preliminary State tabulation.

(i) OCTOBER 15, 1948.

(1) Compute second estimate for August, using final State tabulation.

(2) Compute first estimate for September, using preliminary State tabulation.

(j) NOVEMBER 15, 1948.

The second quarter 1948 ES–202 is available. Proceed as in August, obtaining new worksheet estimates for April, May, and June, 1948; third worksheet estimates for July and August; second worksheet estimate for September; and first estimate for October. Issue the August, September, and October estimates only, unless the revised April-July estimates differ significantly from the old ones.

(k) DECEMBER 15, 1948.

(1) Compute second estimate for October, using final State tabulation.

(2) Compute first estimate for November, using preliminary State tabulation.

(l) JANUARY 15, 1949.

(1) Compute second estimate for November, using final State tabulation.

(2) Compute first estimate for December, using preliminary State tabulation.

(m) FEBRUARY 15, 1949.

(1) Compute new estimates for April 1947 through March 1948, using link-relatives from 1947 ES–203 and first quarter 1948 ES–202.

(2) Adjust the new estimates for January, February, and March, 1948 to new benchmarks for these months, wedging a difference, if appreciable, back through April 1947. The computations in (1) may of course be done earlier, if desired, since the ES–203 and ES–202 are available earlier. However, there is little point to publishing revised estimates from (1) before adjusting the series to the 1948 benchmarks.

(3) Revise the estimates for April through September 1948, using the new benchmark as a base and the second and third quarter 1948 ES–202's for projecting the estimates.

(4) Project the third estimate for October and November and the second estimate for December, using the revised estimates of the preceding months as a base and the BLS sample for projecting.

(5) Project the preliminary estimate for January. Publish the entire revised series.

[3] Publication of the estimate for the second previous month is optional. In the following examples, however, estimates for the second previous month are always shown as published data for purpose of illustration.

4.5–3 General Instructions for Use of ES–202 in Projecting Estimates—Continued

(n) Repeat the foregoing cycle in subsequent years.

4.5–4 Specific Handling of ES–202 Reports

(a) Check data for reasonableness and tabulating accuracy.

(b) Correct for classification changes, utilizing whatever information is entered in the "Remarks" column on the right-hand side of the tabulation to serve as a guide in making such corrections. It is advisable, too, that non-UC contract agencies check with the particular State UC agency to find out what their usual practice is in making and explaining classification changes. It is also advisable to obtain listings containing the ES–202 data for individual firms. A number of UC agencies run ES–202 listing tabulations as a regular practice. Others, which do not prepare ES–202 listing tabulations, may prepare a preliminary ES–203 listing tabulation soon after the ES–202 data for the quarter are tabulated.

(c) The non-UC contract agencies should obtain from the UC agency a list of "complete conversions" which may have taken place since the last quarter and correct for them. The data desired for complete conversions are the same as those now reported on the ES–202 for "gradual conversions." Adjustment for the former should be made in the same way as for the latter. (See section 4.5–6 (d) (2).)

(d) The monthly estimates are projected by means of the ES–202 data as follows:

(1) Compute the ratio of the best worksheet estimate to the corrected ES–202 figure for the first month of the "previous" quarter.

(2) Multiply each of the three corrected figures for the months of the current quarter by the above ratio to obtain the estimates for each of these months.

Note: The result is the same as obtaining the link-relatives between each of the three current months and the first month of the previous quarter and multiplying the best worksheet estimate for the latter month by each of the three relatives. The recommended method, however, simplifies the calculations a little.

4.5–5 Table Showing Use of UC Data in Preparing Current Estimates

Table 4.1 below shows the month of publication or revision of all 1947 estimates and the source of the data used in projecting the estimates.

4.5–6 Illustration of Estimating Process

The following hypothetical example has been set up in order to illustrate the procedure for preparing estimates through the use of the ES–202 report for an industry in which the State sample is weak. (For industries in which there is no BLS sample, the estimates ordinarily projected by means of the sample are projected by extrapolation instead.)

(a) On FEBRUARY 15, 1948, the following estimates should have been completed and pub-

State: West Dakota.
Industry: 99.

Figures published Feb. 15, 1948		Source of data or link-relative used for making the estimates
Data for—	Employment	
1947		
January	2,918	1947 benchmark listing.
February	2,972	Do.
March	3,012	Do.
April	3,092	2d quarter ES–202.
May	2,916	Do.
June	2,882	Do.
July	2,820	3d quarter ES–202.
August	2,893	Do.
September	2,830	Do.
October	2,710	State sample.
November	2,850	Do.
December	2,940	Do.
1948		
January	3,070	Do.

4.5–6 Illustration of Estimating Process—Con.

lished.[4] It is assumed that this is an industry in which total employment only is estimated. For industries in which production workers are estimated the necessary modifications of method are fairly obvious; there should, of course, be few industries for which production worker estimates are made in which it is necessary to use ES–202 data.

(b) MARCH 15, 1948.

State sample employment data

Final tabulation:

December 1947	517
January 1948	537

January 1948 link-relative $= \frac{537}{517}$

Regular estimate (FT) for—

January 1948 $= 2{,}940 \times \frac{537}{517} = 3{,}054.$

Preliminary tabulation:

January 1948	580
February 1948	612

February 1948 link-relative $= \frac{612}{580}$

Preliminary estimate (PT) for—

January 1948 $= 3{,}054 \times \frac{612}{580} = 3{,}222.$

Figures published March 15, 1948

Data for—	Employment
December 1947	2, 940
January 1948	*3, 054
February	3, 222

*Revised over last published estimate.

(c) APRIL 15, 1948.

State sample employment data

Final tabulation:

January 1948	695
February 1948	704

February 1948 link-relative $= \frac{704}{695}$.

FT for February 1948 $= 3{,}054 \times \frac{704}{696} = 3{,}094.$

[4] Unrounded figures have been used in referring to published estimates throughout this illustrative example in order that the reader might be able to trace back the derivation of the figures.

Preliminary tabulation:

February 1948	645
March 1948	658

March 1948 link-relative $= \frac{658}{645}$.

PT for March 1948 $= 3{,}094 \times \frac{658}{645} = 3{,}156.$

Figures published Apr. 15, 1948

Data for—	Employment
January 1948	3, 054
February	*3, 094
March	3, 156

*Revised over last published estimate.

(d) MAY 15, 1948.

(1) Unadjusted ES–202 data are shown below:

Industry 99:

Covered employment:	
July 1947	2, 392
October 1947	2, 331
November 1947	2, 340
December 1947	2, 380
Data relative to industrial reclassification (except small units and complete conversions):	
Previous 3-digit code	899
Current 3-digit code	999
Employment September 1947	108

(2) The ES–202 figures must first be adjusted for classification changes. The above hypothetical example shows that a firm with employment totaling 108 in Industry 89 has been reclassified into Industry 99 as of the fourth quarter of 1947. Presumably (if BES instructions for filling out the ES–202 have been followed) the July 1947 figure excludes the reclassified firm, while the current quarter months include this firm. It is advisable that the non-UC contract agency check with the UC agency to verify this, as well as the State agency's policy in footnoting the ES–202 in re "complete conversions" and noneconomic classification changes. If possible, the non-UC contract agency should obtain notification of classification changes from the UC agency. In addition, the non-UC contract agency should find out whether the UC agency runs listings of individual firm data in preparing its ES–202's and if so, request a carbon copy of such listings in

TABLE 4.1

Summary of Types of Estimates and Cycles of Revision When Estimates Are Based Primarily on UC Data

Estimates for January 1947 through January 1949, showing for each month the source of the current link-relative used for projection, and the base to which the relative is linked [1]

DATA FOR—	MONTH OF PUBLICATION OR REVISION AND SOURCE OF DATA																							
	1947											1948											1949	
	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
1947																								
January	23xPT	23xFT		(24xFT)			(24x21)																	
February		23xPT	23xFT	24xFT			(24x21)						B7											
March			23xPT	24xFT			(24x21)						B7											
April				24xPT	24xFT		(21xFT)			(21x22)			B7x22											
May					24xPT	24xFT	21xFT			(21x22)			B7x22											B7xA7
June						24xPT	21xFT			(21x22)			B7x22											B7xA7
July							21xPT	21xFT		(22xFT)			22x23											B7xA7
August								21xPT	21xFT	22xFT			22x23											B7xA7
September									21xPT	22xFT			22x23											B7xA7
October										22xPT	22xFT		23xFT			(23x24)								
November											22xPT	22xFT	23xFT			(23x24)								B7xA7
December												22xPT	23xFT			(23x24)								B7xA7
1948																								B7xA7
January													23xPT	23xFT		(24xFT)			(24x21)					
February														23xPT	23xFT	24xFT			(24x21)					A7x21 B8
March															23xPT	24xFT			(24x21)					A7x21 B8
April																24xPT	24xFT		(21xFT)		(21x22)			A7x21 B8
May																	24xPT	24xFT	21xFT		(21x22)			B8x22
June																		24xPT	21xFT		(21x22)			B8x22
July																			21xPT	21xFT	(22xFT)			B8x22
August																				21xPT	22xFT			22x23
September																					22xPT	22xFT		22x23	
October																						22xPT	22xF1	22x23
November																							22xPT	22x23
December																								23xFT
1949																								23xFT
January																								23xPT

[1] The first pair of symbols in a cell (e. g., 21 in the entry 21xPT) relates to the most recent UC data used in extending the series, while the second pair of symbols indicates the source of the link-relative used in projecting the series into the current month. The symbols are:

PT = Preliminary State monthly tabulation
FT = Final State monthly tabulation
21 = 1st quarter ES-202
22 = 2d quarter ES-202
23 = 3d quarter ES-202
24 = 4th quarter ES-202
B7 = 1947 Benchmark
B8 = 1948 Benchmark
A7 = Annual ES-203 for 1947

Parentheses around symbols in a cell means that these are work sheet estimates and are not published unless they differ significantly from the last published estimate.

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4.5–6 Illustration of Estimating Process—Con.

order to make the classification adjustments on as exact a basis as possible.

(3) In the above example, we will assume that no data other than those supplied in the ES–202 are available. Accordingly, the September 1947 employment of the converted firm will be carried forward as a constant, and this figure (108) will be deducted from each of the three current month figures. It may be noted here that the adjustment for this conversion will not usually be carried out in subsequent quarters, since the current ES–202 is the only one which will show an abrupt change in level because of the reclassification, and the employment in the reclassified establishment will presumably not be readily available for later quarters. However, if the reclassified firm is very large it may be advisable to adjust future ES–202's if employment data for the firm are available from contributions reports.

(4) The adjusted fourth quarter ES–202 data are as follows:

July 1947	2,392
October 1947	2,223
November 1947	2,232
December 1947	2,272

The latest July 1947 estimates (sec. 4.5–6 (a)) is 2,820. The ratio of July 1947 estimate to July 1947 ES–202 figure $=\frac{2820}{2392}=1.1789$.

	Latest published estimates
Revised worksheet estimate for October 1947 = 2,223×1.1789=2,621	2,710
Revised worksheet estimate for November 1947=2,232×1.1789=2,631	2,850
Revised worksheet estimate for December 1947=2,272×1.1789=2,678	2,940

These revised worksheet estimates are not sufficiently different from the latest published estimates to justify special publication of the revisions (see criteria for publishing revisions, sec. 4.5–7, below). These revised worksheet estimates are used, however, as bases for projecting estimates for succeeding months.

(5) Revised worksheet estimates for January and February are also projected at this time using the most recent worksheet estimate for December as a starting point, and the most recent State sample link-relatives for projecting the revised worksheet estimates.

Revised worksheet estimate for January 1948 $=2{,}678\times\frac{537}{517}=2{,}782$.

Revised worksheet estimate for February 1948 $=2{,}782\times\frac{704}{695}=2{,}818$.

The revised worksheet estimate for January (2,782) is not sufficiently different from the latest published estimate (3,054, published March 15) to justify publication of the revision. However, the revised February worksheet estimate (2,818) would be published if the contract agency is following the policy of publishing estimates for the current month and two preceding months.

(6) At the same time the regular estimate (FT) for March and the preliminary estimate (PT) for April are projected.

State sample employment data

Final tabulation:

February 1948	628
March 1948	672

March 1948 link-relative $=\frac{672}{628}$

FT estimate for March 1948 $=2{,}818\times\frac{672}{628}=3{,}015$.

Preliminary tabulation:

March 1948	600
April 1948	632

April 1948 link-relative $=\frac{632}{600}$

PT estimate for April 1948 $=3{,}015\times\frac{632}{600}=3{,}176$.

Revised worksheet estimates prepared May 15, 1948

Data for—	*Employment*
October 1947	2,621
November	2,631
December	2,678
January 1948	2,782
February	2,818

Figures published May 15, 1948

Data for—	*Employment*
February 1948	*2,818
March	*3,015
April	3,176

*Revised from previously published estimates.

4.5–6 Illustration of Estimating Process—Con.

(e) JUNE 15, 1948.

State sample employment data

Final tabulation:

March 1948	743
April 1948	789

April 1948 link-relative $=\frac{789}{743}$

FT for April 1948 $=3{,}015\times\frac{789}{743}=3{,}202$.

Preliminary tabulation:

April 1948	583
May 1948	592

May 1948 link-relative $=\frac{592}{583}$

PT for May 1948 $=3202\times\frac{592}{583}=3{,}251$.

Figures published June 15, 1948

Data for—	Employment
March 1948	3,015
April	*3,202
May	3,251

*Revised over last published estimate.

(f) JULY 15, 1948.

State sample employment data

Final tabulation:

April 1948	796
May 1948	808

May 1948 link-relative $=\frac{808}{796}$

FT for May 1948 $=3{,}202\times\frac{808}{796}=3{,}250$.

Preliminary tabulation:

May 1948	540
June 1948	527

June 1948 link-relative $=\frac{527}{540}$

PT for June 1948 $=3{,}250\times\frac{527}{540}=3{,}172$.

Figures published July 15, 1948

Data for—	Employment
April 1948	3,202
May	*3,250
June	3,172

*Revised over last published estimate.

(g) AUGUST 15, 1948.

(1) Adjusted first quarter 1948 ES–202 data are as follows (method of adjusting discussed in sec. 4.5–6(d)(2)–(4)):

Covered employment:	Employment
October 1947	2,306
January 1948	2,468
February 1948	2,416
March 1948	2,488

The latest October 1947 worksheet estimate (sec. 4.5–6(d)(4)) is 2,621. The ratio of October 1947 estimate to October 1947 ES–202 figure $=\frac{2{,}621}{2{,}306}=1.1366$.

	Latest published estimates
Revised worksheet estimate for January 1948= $2{,}468\times1.1366=2{,}805$	3,054
Revised worksheet estimate for February 1948= $2{,}416\times1.1366=2{,}746$	2,818
Revised worksheet estimate for March 1948= $2{,}488\times1.1366=2{,}828$	3,015

None of these revised worksheet estimates differ sufficiently from the latest published estimates to warrant publication of the worksheet revision.

(2) New worksheet estimates are now prepared for April and May using the most recent worksheet estimate for March as a base, and the most recent State sample link-relatives for projecting the revised worksheet estimates.

Revised worksheet estimate for April 1948 $=2{,}828\times\frac{789}{743}=3{,}003$.

Revised worksheet estimate for May 1948 $=3{,}003\times\frac{808}{746}=3{,}253$.

The revised worksheet estimate for April (3,003) is not sufficiently different from the latest published estimate (3,202, published July 15, 1948) to warrant reissuing it. The revised May worksheet estimate (3,253), would be published, however, if the contract agency is following the policy of publishing estimates for the current month and two preceding months.

(3) At this time, the regular estimate (FT) for June, and the preliminary estimate (PT) for July are projected:

State sample employment data

Final tabulation:

May 1948	720
June 1948	686

June 1948 link-relative $=\frac{686}{720}$.

FT estimate for June 1948 $=3{,}253\times\frac{686}{720}=3{,}099$.

Preliminary tabulation:

June 1948	580
July 1948	543

July 1948 link-relative $=\frac{543}{580}$.

PT estimate for July 1948 $=3{,}099\times\frac{543}{580}=2{,}901$.

4.5–6 Illustration of Estimating Process—Con.

Revised worksheet estimates prepared Aug. 15, 1948

Data for—	Employment
January 1948	2,805
February	2,746
March	2,828
April	3,003
May	3,253

Figures published Aug. 15, 1948

Data for—	Employment
May 1948	*3,253
June	*3,099
July	2,901

*Revised from previously published estimates.

(h) SEPTEMBER 15, 1948.

State sample employment data

Final tabulation:

June 1948	898
July 1948	845

July 1948 link-relative $=\frac{845}{898}$.

FT for July 1948 $=3{,}099\times\frac{845}{898}=2{,}916$.

Preliminary tabulation:

July 1948	627
August 1948	602

August 1948 link-relative $=\frac{602}{627}$.

PT for August 1948 $=2{,}916\times\frac{602}{627}=2{,}800$.

Figures published Sept. 15, 1948

Data for—	Employment
June 1948	3,099
July	*2,916
August	2,800

*Revised over last published estimates.

(i) OCTOBER 15, 1948.

State sample employment data

Final tabulation:

July 1948	786
August 1948	750

August 1948 link-relative $=\frac{750}{786}$

FT for August 1948 $=2{,}916\times\frac{750}{786}=2{,}782$

Preliminary tabulation:

August 1948	481
September 1948	497

September 1948 link-relative $=\frac{497}{481}$

PT for September 1948 $=2{,}782\times\frac{497}{481}=2{,}875$.

Figures published Oct. 15, 1948

Data for—	Employment
July 1948	2,916
August	*2,782
September	2,875

*Revised over last published estimate.

(j) NOVEMBER 15, 1948.

(1) Adjusted second quarter 1948 ES–202 data are as follows (method of adjusting discussed in sec. 4.5–6 (d) (2)–(4)):

Covered employment	
January 1948	2,253
April 1948	2,549
May 1948	2,584
June 1948	2,447

The latest January 1948 estimate (sec. 4.5–6 (g) (1)) is 2,805. The ratio of January 1948 estimate to January 1948 ES–202 figure $=\frac{2{,}805}{2{,}253}=1.2450$.

	Latest published estimates
Revised worksheet estimate for April 1948= $2{,}549\times1.2450=3{,}174$	3,202
Revised worksheet estimate for May 1948= $2{,}584\times1.2450=3{,}217$	3,253
Revised worksheet estimate for June 1948= $2{,}447\times1.2450=3{,}047$	3,099

All three of the worksheet estimates are fairly close to the latest published estimates, hence are not issued.

(2) New worksheet estimates are now prepared for July and August using the most recent worksheet estimate for June as a starting point and the most recent State sample link-relatives for projecting the revised worksheet estimates.

Revised worksheet estimate for July 1948 $=3{,}047\times\frac{838}{890}=2{,}869$.

Revised worksheet estimate for August 1948 $=2{,}869\times\frac{750}{786}=2{,}738$.

The revised worksheet estimate for July (2,869) is fairly close to the latest published estimate (2,916), hence it is not issued. The revised August worksheet estimate (2,738) would be published if the contract agency were following the policy of publishing estimates for the current month and two previous months.

4.5–6 Illustration of Estimating Process—Con.

(3) At this time the regular estimate (FT) for September and the preliminary estimate (PT) for October are projected.

State sample employment data

Final tabulation:

August 1948	689
September 1948	712

September 1948 link-relative $=\frac{712}{689}$.

FT estimate for September 1948 $=2{,}738\times\frac{712}{689}=2{,}829$.

Preliminary tabulation:

September 1948	530
October 1948	564

October 1948 link-relative $=\frac{564}{530}$.

PT estimate for October 1948 $=2{,}829\times\frac{564}{530}=3{,}010$.

Revised worksheet estimates prepared Nov. 15, 1948

Data for—	Employment
April 1948	3,174
May	3,217
June	3,047
July	2,869
August	2,738

Figures published Nov. 15, 1948

Data for—	Employment
August 1948	*2,738
September	*2,829
October	3,010

*Revised over last published estimates.

(k) DECEMBER 15, 1948.

State sample employment data

Final tabulation:

September 1948	696
October 1948	744

October 1948 link-relative $=\frac{744}{696}$.

FT for October 1948 $=2{,}829\times\frac{744}{696}=3{,}024$.

Preliminary tabulation:

October 1948	386
November 1948	410

November 1948 link-relative $=\frac{410}{386}$.

PT for November 1948 $=3024\times\frac{410}{386}=3{,}212$.

Figures published Dec. 15, 1948

Data for—	Employment
September 1948	2,829
October	*3,024
November	3,212

*Revised over last published estimates.

(l) JANUARY 15, 1949.

State sample employment data

Final tabulation:

October 1948	680
November 1948	733

November 1948 link-relative $=\frac{733}{680}$.

FT for November 1948 $=3{,}024\times\frac{733}{680}=3{,}260$.

Preliminary tabulation:

November 1948	420
December 1948	460

December 1948 link-relative $=\frac{460}{420}$.

PT for December 1948 $=3{,}260\times\frac{460}{420}=3{,}570$.

Figures published Jan. 15, 1949

Data for—	Employment
October 1948	3,024
November	*3,260
December	3,570

*Revised over last published estimate.

(m) FEBRUARY 15, 1949.

At this time, (1) the estimates for April 1947 through March 1948 will be revised using link-relatives from the 1947 ES–203 and the first quarter 1948 ES–202, (2) the new series will be revised to new first quarter 1948 benchmarks, (3) estimates for April through September 1948 will be revised to the second and third quarter ES–202's and (4) estimates for October 1948 through January 1949 will be projected by means of the State sample. The computations in (1) may of course be done earlier, if desired, since the ES–203 and ES–202 are available earlier. However, there is little point to publishing revised estimates from (1) before adjusting the series to the 1948 benchmarks. The step-by-step procedure is illustrated below:

4.5–6 Illustration of Estimating Process—Con.

STEP 1. Revise the April 1947 through December 1947 estimates using the March 1947 benchmark as a starting point and ES–203 link-relatives for April through December. (March 1947 benchmark is 3,012).

Data for	ES–203 employment data [1]	Ratio of March 1947 benchmark to March 1947 ES–203 figure	Revised estimates [2] (2)×(3)
(1)	(2)	(3)	(4)
1947			
March	2,547	1.1826	
April	2,603	1.1826	3,078
May	2,452	1.1826	2,900
June	2,517	1.1826	2,977
July	2,376	1.1826	2,810
August	2,445	1.1826	2,891
September	2,399	1.1826	2,837
October	2,284	1.1826	2,701
November	2,383	1.1826	2,818
December	2,476	1.1826	2,928

[1] Adjusted for classification differences.
[2] Same result as computing link-relatives for all months by linking to March ES–203 figure, but simplifies computations.

STEP 2. Revise the January through March 1948 estimates using the adjusted first quarter 1948 ES–202. These revised figures will be used in adjusting to the 1948 benchmark.

Adjusted first quarter 1948 ES–202 data are as follows (from 4.5–6 (g)):

Covered employment

October 1947	2,306
January 1948	2,468
February 1948	2,416
March 1948	2,488

The latest October 1947 worksheet estimate is 2,701. The ratio of October 1947 estimate to October 1947 ES–202 figure $=\frac{2{,}701}{2{,}306}=1.1713$.

Revised worksheet estimate for January 1948 $=2{,}468\times1.1713=2{,}891$.

Revised worksheet estimate for February 1948 $=2{,}416\times1.1713=2{,}830$.

Revised worksheet estimate for March 1948 $=2{,}488\times1.1713=2{,}914$.

STEP 3. Compare the first quarter 1948 benchmarks with the estimates in step 2 for the corresponding months and revise the estimates to the benchmarks. If the differences are at all marked, wedge back the inter-benchmark estimates to form a continuous series (using the method described in sec. 5.3–3) as in the example below:

Year and month	Estimates based on 1947 benchmarks	First quarter 1948 benchmarks	Coefficients (N)	Total adjustment factor (T) $T=(NM)+1.0000$	Adjusted series (2)×(5)
(1)	(2)	(3)	(4)	(5)	(6)
1947					
April	3,078		1	1.0029	3,087
May	2,900		2	1.0057	2,917
June	2,977		3	1.0086	3,003
July	2,810		4	1.0115	2,842
August	2,891		5	1.0144	2,933
September	2,837		6	1.0172	2,886
October	2,701		7	1.0201	2,755
November	2,818		8	1.0230	2,883
December	2,928		9	1.0259	3,004
1948					
January	2,891	2,976	10	1.0287	2,974
February	2,830	2,920	11	1.0316	2,919
March	2,914	3,012	12	1.0345	3,015

The computation of M follows:

D=(January+February+March) 1948 benchmarks minus

(January+February+March) 1948 estimates

=(2,976+2,920+3,012)−(2,891+2,830+2,914)=273.

W=(10×January 1948 estimate)+(11×February 1948 estimate)+(12×March 1948 estimate)

=(10×2,891)+(11×2,830)+(12×2,914)=95,008.

$M=D/W=273/95{,}008=0.002873$.

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4.5–6 Illustration of Estimating Process—Con.

STEP 4. Revise the April through June 1948 estimates, using the second quarter ES–202 to project these estimates from the new January 1948 estimate (from the adjusted series, step 3).

Adjusted second quarter ES–202

January 1948	2,253
April 1948	2,549
May 1948	2,584
June 1948	2,447

The latest January 1948 estimate is 2,974 (step 3, above). The ratio of January 1948 benchmark adjusted figure to January 1948 ES–202 figure $=\frac{2,974}{2,253}=1.3200$.

Revised estimate for April 1948=2,549×1.3200=3,365.

Revised estimate for May 1948=2,584×1.3200=3,411.

Revised estimate for June 1948=2,447×1.3200=3,230.

STEP 5. Revise the July through September 1948 estimates, using the third quarter ES–202 to project these estimates from the latest revised April 1948 estimate (step 4, above).

Adjusted third quarter ES–202

April 1948	2,673
July 1948	2,512
August 1948	2,430
September 1948	2,492

The latest revised estimate for April 1948 is 3,365 (step 4, above). The ratio of April 1948 estimate to April 1948 ES–202 figure $=\frac{3,365}{2,673}=1.2589$.

Revised estimate for July 1948=2,512×1.2589=3,162.

Revised estimate for August 1948=2,430×1.2589=3,059.

Revised estimate for September 1948=2,492×1.2589=3,137.

STEP 6. Project revised estimates for October and November 1948, using the final State tabulation link-relatives for projecting the estimates, and the latest revised estimate for September (step 5) as a starting point.

Link-relative for October 1948 from final September-October 1948 State tabulation $=\frac{744}{696}$ (sec. 4.5–6 (k)).

Latest revised estimate for September 1948=3,137 (step 5, above).

Revised estimate for October 1948=3,137×$\frac{744}{696}$=3,353.

Link-relative for November 1948 from final October-November 1948 State tabulation $=\frac{733}{680}$ (sec. 4.5–6 (l)).

Latest revised estimate for November 1948=3,353×$\frac{733}{680}$=3,614.

STEP 7. Project regular estimate (FT) for December 1948 and preliminary estimate (PT) for January 1949.

State sample employment data

Final tabulation:

November 1948	810
December 1948	821

December 1948 link-relative $=\frac{821}{810}$

FT for December 1948=3,614×$\frac{821}{810}$=3,663.

Preliminary tabulation:

December 1948	542
January 1949	512

January 1949 link-relative $=\frac{512}{542}$

PT for January 1949=3,663×$\frac{512}{542}$=3,460.

Note.—In some States with one-or-more coverage where the UC agency has adopted optional procedures suggested by BES, and in which the BLS-State sample for an industry is inadequate, the direct substitution of UC data in lieu of the estimates yielded by the process described in this section may lead to equally good or better results and is procedurally simpler. Any State which wishes to make this direct substitution should discuss the matter with BLS.

TABLE 4.2

CONTROL SHEET FOR USE IN PROJECTING EMPLOYMENT ESTIMATES [1]

Data for—	Month of publication or revision												
	1948											1949	
	February	March	April	May	June	July	August	September	October	November	December	January	February
1947													
January	2,918												
February	2,972												
March	3,012												
April	3,092												3,087
May	2,916												2,917
June	2,882												3,003
July	2,820												2,842
August	2,893												2,933
September	2,830												2,886
October	2,710			(2,621)									2,755
November	2,850			(2,631)									2,883
December	2,940	2,940		(2,678)									3,004
1948													
January	3,070	3,054	3,054	(2,782)			(2,805)						2,974
February		3,222	3,094	2,818			(2,746)						2,919
March			3,156	3,015	3,015		(2,828)						3,015
April				3,176	3,202	3,202	(3,003)			(3,174)			3,365
May					3,251	3,250	3,253			(3,217)			3,411
June						3,172	3,099	3,099		(3,047)			3,230
July							2,901	2,916	2,916	(2,869)			3,162
August								2,800	2,782	2,738			3,059
September									2,875	2,829	2,829		3,137
October										3,010	3,024	3,024	3,353
November											3,212	3,260	3,614
December												3,570	3,663
1949													
January													3,460

[1] Figures in parentheses indicate unpublished worksheet estimates. In keeping up such a chart, the State office can circle in red pencil (or use some other distinguishing mark) to designate the best estimate in a series for a given month to use as a base for projecting estimates for later months. The most recent estimate (whether published or unpublished) distinguished in this manner, would be used in a given instance.

4.5–6 Illustration of Estimating Process—Con.

Figures published February 15, 1949

Data for	Employment	Source of data or link-relative used for making the estimates	Data for	Employment	Source of data or link-relative used for making the estimates
1947			*1948*—Con.		
April	3,087	1947 ES–203.	April	3,365	2d quarter 1948 ES–203.
May	2,917	Do.	May	3,411	Do.
June	3,003	Do.	June	3,230	Do.
July	2,842	Do.	July	3,162	3d quarter 1948 ES–202.
August	2,933	Do.	August	3,059	Do.
September	2,886	Do.	September	3,137	Do.
October	2,755	Do.	October	3,353	State sample.
November	2,883	Do.	November	3,614	Do.
December	3,004	Do.	December	3,663	Do.
1948			*1949*		
January	2,974	1948 benchmark listing.	January	3,460	Do.
February	2,919	Do.			
March	3,015	Do.			

(n) A sample control sheet listing the various worksheet and published estimates derived in the preceding paragraphs is shown in table 4.2. The Contract State agencies should keep current a control sheet of this general form in order to facilitate preparation and revision of the estimates made by use of the ES–202's.

4.5–7 "Significant Difference"

When using the ES–202 method for projecting estimates, the general policy rule is to consider a difference between the old and adjusted estimates significant only if the adjustment would lead to a difference in a *published* category which could be considered of economic importance. A suggested rule of thumb is not to adjust unless the adjustment would lead to a difference in a *published* category of at least 5 percent and then only if the 5 percent comprised 500 or more workers. In applying this criterion, if the desirability of making adjustments is being considered for several subgroups making up one published category, the several subgroups should be considered collectively.

4.6 EXTRAPOLATION OF MONTHLY ESTIMATES

4.6–1 Need for Extrapolation

When the regular source of data for an employment series is not available by the time the regular estimates are to be prepared, the need arises for some sort of preliminary estimate. In such cases, it is recommended that the employment series be extrapolated—i. e., that the estimate be based on the past performance of the series itself. The accuracy of the extrapolated

4.6–1 Need for Extrapolation—Continued

estimate will depend upon the stability of the series in the past.

4.6–2 Recommended Procedure

The extrapolation procedure recommended depends upon the argument that, over a short period of prediction, there is little change in the complex of causes of variation of employment from a year before. Thus, if a September estimate is needed and August, the last known month, is ten percent above the previous August, then September is estimated as ten percent above the previous September. Note that, arithmetically, this is the same as applying the August-September *change* of a year ago to this year.

A slight refinement is possible if a chart is kept showing each month as a percent change from a year earlier. If this line moves steadily, say at a decline of two or three percent a month during May–August, the September estimate would be seven or eight percent instead of ten percent above September of the previous year.

Where the prediction period is more than one month the same type of procedure is readily extended in an obvious manner. The use of the chart is somewhat more helpful in such cases.

4.6–3 Information From Newspapers

The States should note newspaper references to strikes, shut-downs, and similar items which would necessitate adjustments in extrapolated estimates. For example, if it is known that a strike has occured during the pay roll period ending nearest the 15th of the current month in a large firm in an industry for which an extrapolated estimate is being prepared, an estimate of employment of this firm before the strike would be subtracted from the extrapolated estimate.

4.6–4 Other Methods

While other and more elaborate methods are available, they are not recommended for use at this time. The Washington staff will be glad to discuss this problem further upon the request of any Contract State agency.

4.7 VALIDATION OF CURRENT ESTIMATES

4.7–1 Review by State Agency

Any of the methods employed in preparing the current estimates may be subject to error as a result of a variety of factors which exert their effect in the estimating process. Accordingly, each agency that prepares estimates should develop some system of reviewing its estimates before submitting them to the Washington office or for publication.

4.7–2 Use of Charts

The use of charts is helpful in reviewing estimates. The employment data obtained from the ES–203's and from the ES–202's and the actual estimates which result from the application of trends to the benchmarks should be recorded on charts. It may also be desirable to enter on these charts information from other sources, such as census data. It is good practice to chart data before and after statistical manipulations or adjustments of any kind so that the expected and actual effect of the procedures used will be apparent at a glance. The charts should be labeled completely and accurately. It is important to distinguish between types of data; for example, UC may mean ES–202, ES–203, a special listing, or even a trend derived from basic UC data. A distinction should always be made between total employment and production worker employment.

4.7–3 Labeling Worksheets

Worksheets should be carefully labeled, so that the procedures employed and the computations made may be checked readily if the review indicates possible discrepancies.

4.7–4 Use of Different Estimating Methods

Not infrequently it may be advisable to apply more than one method of estimating in a specific instance and to check the results obtained by the different methods against one another and

4.7–4 Use of Different Estimating Methods—Continued

against related data, in order that the method yielding the most reliable results may be selected.

4.7–5 Explanations for Changes

Explanations should be sought for any changes from the previous month in excess of 5 percent. Some systematic record should be kept of such explanations, both for reference use in the Contract State office and for the use of the BLS. (See vol. II, sec. 7.5–7.)

4.7–6 Seasonal Patterns

For industries having seasonal patterns, the estimates should be checked against the seasonal trends of the latest census. Census data are also useful in checking ratios of production workers to total employment. It must be realized, however, that in many industries, both seasonal patterns and the production-worker to total-employment ratios change so that the usefulness of census data for these items will generally diminish with time.

4.7–7 Improved Techniques a Byproduct of Review

The careful review of estimates by the Contract States will be of value not only in producing more reliable estimates, but also may prove to be a source for developing new and improved estimating procedures that can be incorporated in the *Manual* for the use of all the contract agencies.

4.8 HISTORICAL NOTES ON ESTIMATING PROCEDURE

4.8–1 Summary

The State Employment Statistics Program, when originally set up, provided for the preparation of monthly employment estimates for 1943 and subsequent years. Inasmuch as the program was inaugurated in March 1945, UC data were already available for 1943 and the first 9 months of 1944. Moreover, the BLS national sample was not very reliable on a Statewide basis, by industry, in many instances, for these earlier years. Accordingly, the procedures recommended for preparing the estimates for these years entailed the use, in very large measure, of UC data from the ES–202, and more particularly from the ES–203 reports, with use of BLS sample data recommended only for the first 9 months of 1944 and then only as an alternative method. Commencing with October 1944, the BLS sample was the recommended method for preparing the estimates on a current monthly basis. The methods used for preparing the monthly estimates prior to 1945 are reviewed in the following paragraphs and are described more fully in section 12 of the 1945 edition of the *Manual*.

4.8–2 1943 Employment Estimates

The 1943 monthly employment estimates were based upon UC tabulations. These were adjusted, where necessary, for classification differences and linked to the benchmarks for the third quarter of 1943 to obtain estimates for the other months of the year.

4.8–3 January–September 1944 Estimates

It was recommended that monthly employment estimates for the first 9 months of 1944 be secured in one of various ways, depending upon the availability of source data, equipment, and personnel. Each method possessed advantages and disadvantages. It was recommended that all methods be reviewed before selecting the most appropriate for a particular industry. The three approaches that were suggested are outlined below:

(a) ES–203 METHOD. Use of this method depended upon availability of data for delinquent establishments and upon the availability of UC employment data (ES–203).[5] After adjusting for delinquency and for industrial classification changes, the monthly ES–203 data were multiplied by the appropriate small-firm multiplier

[5] It was recognized that the ES–203 tabulations were not due until seven months after the close of the calendar year. The reference was to tabulations of the cards which are as complete as the ES–203 would normally be.

4.8–3 January–September 1944 Estimates—Continued

(discussed in section 3.3, volume II) to allow for employment in noncovered establishments. The products were the monthly estimates of total employment.

(b) ES–202 METHOD. This method utilized the ES–202 reports for the first 3 quarters of 1944. The data from these reports were adjusted for delinquency and for classification changes and link-relatives were computed for each of the months of each quarter with the first month of the preceding quarter as a base. The employment estimate for the latter month was used as the benchmark which was multiplied by the monthly link-relatives for the following quarter to obtain the monthly estimates for that quarter.

(c) BLS SAMPLE METHOD. This method utilized reports to BLS for the first 9 months of 1944. The use of this method was advocated only when ES–202's could not be used. Reports to BLS for 1944 were edited to show only those establishments reporting for each month of 1944. If schedules lacked data for one or two months only, the figures for the missing months were interpolated, if possible. Schedules lacking data for a number of months were not used, but were watched carefully for significant changes in employment level. For those industries reporting production worker employment as well as total employment, the total employment figure was used. If the total employment figure was not available for a particular establishment, the production worker figure was used. At the time of editing, the 2–digit group code was entered on the BLS schedule. A punch card was prepared for each schedule showing: (a) 2–digit code, (b) BLS codes, and (c) employment data for each month from December 1943 to September 1944. These punch cards were then tabulated to show the monthly employment totals for each 2–digit group. Estimates for each of the first 9 months of 1944 were obtained by applying the monthly link-relatives computed from the BLS tabulations to the estimates for December 1943. Since the December 1943 estimates were as of the end of the month and the BLS reports were as of the mid-month, some adjustment had to be made to the December 1943 estimates before the BLS relatives were applied. For most industries a satisfactory method was to average the November and December estimates. This resulted in an estimate as of the mid-month, to which the BLS relative could be applied. However, in some groups such as retail trade, the timing of the reports required an adjustment that could only be determined by an inspection of the 1943 estimates and the 1944 link-relatives.

4.8–4 Estimates for October 1944 and Subsequent Months

For October 1944 and subsequent months, monthly estimates were to be based upon BLS schedules. The procedures recommended were essentially the same as those described in section 4.2–2 although it should be noted that some revision in the procedures has been made from the 1945 *Manual*.

SECTION 5

Revisions

5.1 SCOPE OF SECTION

5.1–1 Need for Revisions

Methods for obtaining benchmarks and preparing monthly estimates of employment have been described in sections 3 and 4, volume II. It was noted that the benchmarks, in most industries, are obtained from UC and BOASI data, while the general method of computing current estimates of employment is based on the percent of change in employment in sample establishments. The process of estimating from a sample gives rise to a certain degree of error. Moreover, the need for preparing the estimates on a current basis frequently results in the omission of significant data and pertinent information that are not available in time for inclusion in the estimating process. Furthermore, the varying nature of the available data and variations in personnel and tabulating facilities in the several States make it necessary that the estimating procedures possess a certain degree of flexibility. As a result of these factors, the need for revisions frequently arises.

5.1–2 Types of Revisions

BLS policy with respect to revisions is to limit them to a minimum consistent with the usability of the employment data. Under present BLS policy, revisions have been grouped into three general classes: monthly revisions, revisions to new benchmarks, and other revisions. These classes of revisions are discussed in the following sections.

5.1–3 Revisions on the Basis of UC Data

A special case calling for a systematic series of revisions has already been discussed in section 4.5, volume II (Use of UC data to project current estimates), along with the preparation of current estimates, inasmuch as the treatment of "current estimates" and "revisions" are almost indistinguishable for that particular type of estimate.

In States where UC has "one-or-more-at-any-time" coverage, it may in some instances be simpler and more accurate to develop "benchmark" data for all 12 months of the year, for substitution at the time of annual revisions, rather than adjust BLS sample trends to a one-quarter benchmark as described in section 5.3. States that are considering such a procedure should obtain the approval of the BLS Washington office before departing from usual procedures.

5.2 MONTHLY REVISIONS

5.2–1 Extent of Revisions

In section 8, volume II, it is noted that the monthly State release will include employment estimates for the current month, the preceding month, and the current month of a year ago. A revised estimate for the second preceding month may be published if desired by the field offices. The current month estimate will be a preliminary one, based upon preliminary tabulations of sample establishments. At the time this preliminary estimate is prepared, the regular monthly tabulations for the preceding month

5.2–1 Extent of Revisions—Continued

will be available. Thus, the estimate for the preceding month will be based upon this regular tabulation, and will be a revision of the preliminary estimate prepared a month before. At the same time, the estimate for the second month prior to the current month may be revised by the State offices, if they desire, and will become the final estimate for that month. This latter revision may be necessitated by the fact that the regular tabulations have omitted some late reporters. In addition, other facts and data which might affect the accuracy of the estimate based on the regular monthly tabulation may come to light after the regular estimates are prepared, but in time for inclusion in the release for the following month.

5.2–2 Revision Methods

To make these revisions, the tabulations of identical establishments are first made as complete as possible by including the late reporters. Then, recently acquired information on births, deaths, strikes, and the like are taken into account, and the estimates are recalculated in accordance with the procedures outlined in section 4, volume II.

5.3 REVISIONS TO NEW BENCHMARKS

5.3–1 Frequency of Benchmarks

Inasmuch as the monthly estimates are most commonly prepared by projecting a benchmark by means of sample data, a new benchmark will be computed approximately once a year in order to compare the estimates with a relatively accurate count of total employment. Three types of revisions will be made at the time the new benchmark is determined, as described below.

5.3–2 Revisions To Be Made Before Adjusting to Benchmarks

Estimates for the new benchmark month or months and for all interbenchmark months will be reviewed in the light of any new or additional data or information that have become available since the monthly revisions to these estimates were made. Extensive review of the estimates should be conducted in an attempt to discover special causes of error. After the additional information has been compiled and the review completed, all necessary revisions of the existing estimates indicated by this more recent knowledge will be carried out. For example, if it is learned that a large establishment began operations in the interval between the old and new benchmark periods but was not included in the sample from which monthly trends were computed, the series should be revised by adding the employment figures for this establishment to the estimates.

5.3–3 Revising the Total Employment Series

After the series has been examined and revised (if revision is necessary), the series of estimates for the months prior to and including the new benchmark quarter will be revised to form a continuous series between the two benchmarks in the manner outlined below:[1]

(a) It is presumed that new benchmark data for three consecutive months are available. Add the three new benchmarks and subtract from this sum the sum of the corresponding three estimates. The difference is called (D).

(b) Multiply the first of the three monthly estimates corresponding to the first of the three benchmark months by 10, the second by 11, and the third by 12, and add the three products to obtain the weighted sum of the estimates (W).

(c) Divide (D) by (W) to obtain the weighted average monthly relative difference (M) between benchmarks and estimates.

(d) Assign the value O to each month of the old benchmark period and assign consecutive integers to the interbenchmark months, commencing with 1 for the month following the last of

[1] The revision procedures described in this and the following section assume a yearly adjustment. In the event that adjustment of estimates is made for a period other than a year at some future date, the assignment of coefficients to the interbenchmark months and of weights to the benchmark period estimates would be altered in an obvious manner.

5.3–3 Revising the Total Employment Series—Continued

the three old benchmark months and ending with 12 for the third of the new benchmark months. These numbers (N) are titled "coefficients" (see table 5.1).

(e) Multiply the weighted average monthly relative difference (M) by each of the coefficients (N) in turn and add 1.000 to each of the products to obtain the adjustment factor (T) for each month.

(f) Multiply each of the monthly estimates by the corresponding adjustment factor (T) to obtain estimates adjusted to the new benchmarks.

Table 5.1 illustrates the above adjustment procedure.

TABLE 5.1

WORKSHEET FOR ADJUSTING DERIVED SERIES OF EMPLOYMENT ESTIMATES
STATE—WEST DAKOTA
INDUSTRY 54 — RETAIL FOOD AND LIQUOR STORES

Year and month	Series derived from 1947 benchmark	Benchmarks	Coefficients (N)	Total adjustment factor (T) $T=(N\times M)+1.0000$	Adjusted series (2) × (5)
(1)	(2)	(3)	(4)	(5)	(6)
1947					
January	(74,400)		0	1.0000	74,400
February	(74,600)		0	1.0000	74,600
March	(74,800)		0	1.0000	74,800
April	75,700		1	1.0011	75,800
May	76,600		2	1.0021	76,800
June	80,200		3	1.0032	80,500
July	72,900		4	1.0042	73,200
August	72,100		5	1.0053	72,500
September	73,400		6	1.0063	73,900
October	73,300		7	1.0074	73,800
November	73,500		8	1.0084	74,100
December	74,400		9	1.0095	75,100
1948					
January	74,700	75,300	10	1.0106	75,500
February	74,300	75,200	11	1.0116	75,200
March	74,900	76,000	12	1.0127	75,900

D=(January+February+March) 1948 benchmarks minus (January+February+March) 1948 estimates
=(75,300+75,200+76,000)−(74,700+74,300+74,900)=2,600.
W=(10×January 1948 estimate)+(11×February 1948 estimate)+(12×March 1940 estimate)
=(10×74,700)+(11×74,300)+(12×74,900)=2,463,100.
$M=D/W$=2,600/2,463,100=0.001056.

5.3–4 Revising Production and Nonproduction Estimates to New Benchmarks

The revision procedures outlined in section 5.3–3 pertain to industries in which only total employment estimates are made. This section deals with the procedures for revising the production worker and nonproduction worker estimates, separately, to new benchmarks, for industries in which production and nonproduction worker estimates are projected separately. The procedures for resolving benchmarks into their production worker and nonproduction worker components have been described in detail in volume II, section 3. The next step is to revise the interbenchmark estimates of production workers and nonproduction workers, separately. The procedure for making these revisions is described in the following paragraphs.

(a) Compute the monthly ratios of production workers to total employment for the old benchmark and for the series of estimates based on the old benchmark ending with the estimates for the new benchmark period.

(b) Compute the ratio of production workers to total employment for each month of the new benchmark, using the total employment and the production worker component of the benchmark obtained according to the method described in section 3, volume II.

(c) Add the ratios for the three new benchmark months and subtract from the result the sum of the ratios for the old estimates in those months to obtain the total difference, (*D*).

(d) Multiply the ratio for the estimate in the first of the three new benchmark months by 10, the second by 11, the third by 12, and add to obtain the weighted sum of the estimate ratios (*W*).

(e) Divide (*D*) by (*W*) to obtain the average weighted difference in the ratios (*M*).

(f) Assign the value zero to each of the old benchmark months and assign consecutive integers to the following months, commencing with 1 for the month following the last old benchmark month and ending with 12 for the last of the new benchmark months. These numbers are termed coefficients (*N*).

(g) Multiply (*M*) by each (*N*), in turn, and add 1.0000 to obtain the adjustment factor (*T*) for each month.

(h) Multiply each of the estimate ratios by the corresponding adjustment factor (*T*) to obtain the revised ratios of production workers to total employment (*R*).

(i) List the estimates of all employees, revised to the new benchmarks (obtained according to the method described in sec. 5.3–3).

(j) Multiply each of the revised estimates of all employees by the corresponding factor (*R*) to obtain the revised series of estimates of production workers.

(k) Subtract each month's revised production worker estimate from the corresponding all employee revised estimate to obtain the revised series of estimates of nonproduction workers.

Table 5.2 illustrates the method outlined in the preceding paragraphs for a hypothetical case.

5.3–5 Revising the Estimates for Months Subsequent to Most Recent Benchmark

Data used in preparing the new benchmarks are generally not available until about 7 to 10 months subsequent to the last month of the period of reference. Thus monthly estimates based on a March 1947 benchmark would continue to be made until around November of 1948, for example. At that time, benchmarks for January–March 1948 would be available and the monthly estimates for April 1947–March 1948 would be revised in accordance with the procedures outlined in sections 5.3–2, 5.3–3, and 5.3–4. Having made these revisions, the estimates for April 1948–November 1948 would still be those based on the March 1947 benchmark. Accordingly, the final step in the annual revisions is to revise the estimates for these months to the new benchmark level. This is done by chaining the link-relatives derived from the BLS samples for those months to the March 1948 benchmark and replacing the estimates based on the March 1947 benchmark with

5.3–5 Revising the Estimates for Months Subsequent to Most Recent Benchmark—Continued

these new estimates. When the next benchmark becomes available, say for the first quarter 1949, the monthly estimates for April 1948–November 1949 will then be adjusted to this later benchmark, employing the procedures described in sections 5.3–3, 5.3–4, and the present section (5.3–5).

5.3–6 Revising Estimates When Previous Year Benchmark Does Not Exist

In some States, instances may arise in which benchmark data for some industries were not available for a given year. Thus, if a new benchmark is available for the following year, revision of the estimates to the new benchmark must be modified to take account of the absence of the previous year's benchmark. The procedure to follow in such cases is to wedge the series of estimates back from the new benchmark to the last previous benchmark employing the revision methods described in sections 5.3–3 and 5.3–4. For example if there were benchmarks for an industry for the first quarters of 1947 and 1949, but none for 1948, the estimates from April 1947 to November 1949 would be revised to the 1949 benchmark.

5.4 OTHER REVISIONS

5.4–1 Other Revisions Kept to a Minimum

Revisions, other than the regular monthly and annual ones described in sections 5.2 and 5.3, should be kept to an absolute minimum. Such unusual revisions should not be made unless more recent information discloses that earlier estimates can be significantly improved. A rule of thumb for determining whether or not a difference is significant is stated in section 4.5–7, volume II.

5.5 REVISIONS FOR SPECIAL INDUSTRIES

5.5–1 Reference: Industries Requiring Special Treatment

The preceding discussion of revisions applies primarily to those covered industries which fall within the province of the general procedures for preparing benchmarks and monthly estimates. Techniques and procedures that apply to the preparation of benchmarks and monthly estimates for industries to which the general methods do not apply are discussed in sections 9, 10, and 11, volume II. Insofar as the revision methods discussed above apply to the varied procedures in these special industries, the same methods should be employed. In those cases where the above revision procedures are not pertinent, reviews of the estimates should be made, in any case, in an attempt to bring about improvements in these estimates. Where review indicates possibilities for betterment of the estimates, the revisions should be performed at the same time (both monthly and annually) as those performed in the case of the general group of covered industries with which the revision procedures discussed in the preceding subsections of section 5 are primarily concerned.

TABLE 5.2

WORKSHEET FOR ADJUSTING MONTHLY PRODUCTION AND NONPRODUCTION WORKER ESTIMATES TO NEW BENCHMARK

STATE—WEST DAKOTA

INDUSTRY 28—CHEMICALS AND ALLIED PRODUCTS

Month and year	Ratios of production workers to total employment for old benchmarks and interbenchmark estimates	Ratios of production workers to total employment for new benchmarks	Coefficients (N)	Adjustment factor (T) $(T)=(N)(M)+1.0000$	Adjusted ratios of production worker to total employment (R) $R=(2)\times(5)$	Revised all-employee estimates	Revised production worker estimates $(6)\times(7)$	Revised nonproduction estimates $(7)-(8)$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1947								
January	0.8879		0	1.0000	0.8879	35,200	31,250	3,950
February	.8837		0	1.0000	.8837	34,800	30,750	4,050
March	.8816		0	1.0000	.8816	34,200	30,150	4,050
April	.8835		1	1.0007	.8841	33,500	29,620	3,880
May	.8807		2	1.0014	.8819	34,600	30,510	4,090
June	.8776		3	1.0021	.8794	34,800	30,600	4,200
July	.8767		4	1.0028	.8792	34,900	30,680	4,220
August	.8697		5	1.0035	.8727	35,000	30,540	4,460
September	.8730		6	1.0042	.8767	34,300	30,070	4,230
October	.8637		7	1.0049	.8679	34,200	29,680	4,520
November	.8681		8	1.0056	.8730	33,100	28,900	4,200
December	.8760		9	1.0063	.8815	33,500	29,530	3,970
1948								
January	.8740	0.8790	10	1.0070	.8801	32,100	28,250	3,850
February	.8744	.8834	11	1.0077	.8811	32,900	28,990	3,910
March	.8695	.8764	12	1.0084	.8768	33,800	29,640	4,160

D = (January + February + March) 1948 benchmark ratios minus (January + February + March) 1948 estimate ratios = (0.8790 + 0.8834 + 0.8764) − (0.8740 + 0.8744 + 0.8695) = +0.0209.

W = (10 × January 1948 estimate ratio) + (11 × February 1948 estimate ratio) + (12 × March 1948 estimate ratio) = 8.7400 + 9.6184 + 10.4340 = 28.7924.

$$M=\frac{D}{W}=\frac{+0.0209}{28.7924}=+0.0007$$

SECTION 6

Clearance and Editing of Schedules

6.1 CLEARANCE OF SCHEDULES

6.1–1 Preparation and Clearance of Employment Schedules

In the preparation of employment schedules for the coming year, study of the schedules in use is begun early in the current year. Primary consideration is given to the changes recommended by the Bureau of the Budget during their review of the previous year's schedules. Suggestions received during the last year from other sources are also examined. A first draft of the new schedules is then prepared. These drafts are presented to the chiefs of the operating units for specific comments. The operating staff at the same time offers general suggestions applicable to all schedules. The analysis section is questioned concerning the suitability of the comment section in providing material for use in press releases. The comments and proposals are carefully analyzed. Meetings are held on suggestions affecting policy or large phases of the work. A second draft of all schedules is prepared. The second drafts are submitted to operations staff for approval on operational phases such as adequacy for addressographing, coding, sorting, and punching. Photostats of these proposed schedules are then made for distribution to the Contract States which are requested to review the schedules and comment on them.

The State comments are carefully evaluated and the BLS schedules are revised in line with all suggestions adopted. Approval from the Branch and the Assistant Commissioner's office completes the clearance procedure within the Department. The schedules are then ready to be submitted for review by the Bureau of the Budget, as required by the Federal Reports Act of 1942.

6.1–2 Clearance of State Schedules

The procedure outlined in 6.1–1 is followed for the clearance of BLS schedules sent directly from Washington and for those State schedules identical with direct schedules except for overprinting of State headings.

The procedure for clearance of State schedules used in a few State agencies printing their own forms is similar to that outlined in 6.1–1. These special State schedules are sent to Washington at the time suggestions are offered on the BLS schedules. Minor changes made on the BLS schedules during clearance are carried (with the State's approval) to the State schedules in order to achieve uniformity and greater comparability. Special schedules for State use are authorized by the Bureau of the Budget where additional information (necessary to the individual State) is collected on the same schedule with the regular employment, pay roll, and hour items. Complete justification of any deviations from the approved BLS forms is required.

6.1–3 Schedule Clearance Procedure—Bureau of the Budget

All schedules sponsored by the BLS must be cleared by the Division of Statistical Standards of the Bureau of the Budget. This clearance is required under the Federal Reports Act of 1942.[1] Section 5 of this Act states that "No Federal agency shall conduct or sponsor the collection of information, upon identical items, from ten or more persons * * * unless, in advance of adoption or revision of any plans or forms to be used in such collection,

[1] U. S. C., 1940 ed., Sup. V, § 139.

6.1–3 Schedule Clearance Procedure—Bureau of the Budget—Continued

(a) The agency shall have submitted to the Director [of the Bureau of the Budget] such plans or forms, together with copies of such pertinent regulations and other related materials as the Director shall specify; and

(b) The Director shall have stated that he does not disapprove the proposed collection of information."

Section 2 of the act declares it to be the policy of Congress that "information which may be needed by the various Federal agencies should be obtained with a minimum burden upon business enterprises (especially small business enterprises) and other persons required to furnish such information, and at a minimum cost to the Government; that all unnecessary duplication of efforts in obtaining such information through the use of reports, questionnaires, and other such methods should be eliminated as rapidly as practicable; and that information collected and tabulated by any Federal agency should insofar as is expedient be tabulated in a manner to maximize the usefulness of the information to other Federal agencies and the public." This mandatory clearance also applies to Contract State schedules, which bear the heading of a Federal agency. The mail franking privilege is granted for use with schedules bearing the approval numbers assigned by the Bureau of the Budget.

6.1–4 Time Schedule for the Preparation, Clearance, and Printing of BLS Employment Forms

Jan. 1–Feb. 15	Study schedules in use to catch obvious inconsistencies. Explore general changes recommended by the Bureau of the Budget during review of previous year's schedules.
Feb. 16–Feb. 28	Prepare first drafts of new schedules.
Mar. 1–Apr. 15	Examination of drafts by Employment Statistics operations staff. Receive suggestions—hold meetings on proposals affecting policy or large phases of work.
Apr. 16–May 15	Analyze suggestions—prepare second draft of schedules. Check with operations personnel for adequacy as to provisions for mailing.
May 16–May 25	Have photostats of proposed schedules made—for distribution to the Contract States.
May 21–May 31	Prepare questionnaire to accompany photostats—covers request for comments on schedules and order for following year.
June 1–June 5	Mail photostats and questionnaire.
June 6–July 5 [1]	Review of schedules by Contract States. Analyze comments as received.
July 1–July 5 [1]	Follow-up wire or letter to States not replying to questionnaire.
July 6–Aug. 5 [1]	Discuss State comments with Contract State agencies through correspondence or personal visits. Revise schedules in line with all suggestions adopted.
Aug. 1–Aug. 5	Prepare Bureau of the Budget clearance forms and justifications of changes on schedules.
Aug. 6–Aug. 15	Discussions with Division of Statistical Standards during clearance.
Aug. 16–Aug. 20	Prepare printer's copy of all schedules as approved.
Aug. 21–Oct. 20	Printing of schedules.
Oct. 1–Oct. 20	Multilith plates being prepared for State schedules requiring overprinting.

[1] These steps directly involve the Contract State agencies.

6.1–4 Time Schedule for the Preparation, Clearance, and Printing of BLS Employment Forms—Con.

Oct. 16–Oct 20	Preparation and clearance of requisitions for multilithing and folding. Preparation of franks and shipping instructions.
Oct. 21–Oct. 25 [1]	State schedules being sorted, assembled and those overprinted by the States shipped.
Oct. 21–Oct. 31	State schedules requiring overprinting and folding being printed and folded.
Oct. 21–Nov. 2	Direct schedules (e. g., schedules to be mailed from Washington) being sorted, assembled, and addressographed.
Oct. 26–Nov. 2 [1]	State schedules requiring overprinting and folding shipped as completed.
Nov. 3–Dec. 15 [1]	Addressographing of schedules by States.
Dec. 15–Jan. 15 [1]	December data being transcribed by States on new schedules while processing December data for release.

Schedules prepared by Contract States (see 6.1–2) are not covered in the above agenda. Such schedules may be submitted for clearance at any time after June 6. Approval is obtained as expeditiously as possible.

6.2 LIST OF BLS SCHEDULES

6.2–1 Schedules Used for Different Industries

For all manufacturing industries BLS schedule 790 is used.

For the construction industry (SSA 15, 16, 17) BLS 901 is used. For large firms BLS 901–I is substituted since it allows for data on 30 additional construction sites.

The BLS schedules used for other nonmanufacturing industries are shown in figure 6.1.

6.2–2 Examples of BLS Employment Schedules

Figures 6.2 through 6.18 are facsimiles of the employment schedules currently used by the BLS. The codes of industries covered by each schedule are superimposed on the schedule.

FIGURE 6.1

FIGURE 6.1.—LIST OF BLS EMPLOYMENT SCHEDULE NUMBERS FOR NONMANUFACTURING INDUSTRIES (OTHER THAN CONTRACT CONSTRUCTION) ARRANGED IN ORDER OF SSA CLASSIFICATION CODE NUMBERS

SSA industry code No.	Industry title	BLS employment schedule No.	SSA industry code No.	Industry title	BLS employment schedule No.
07	Agricultural and similar service establishments	1767	132	Natural-gas and natural-gasoline production	871
08	Forestry	1767	133	Oil- and gas-field contract services	1767
09	Fishing	1767	14	Nonmetallic mining and quarrying	696
10	Metal mining	701	40	Interstate railroads	[2]
11	Anthracite mining	699	41	Local railways and bus lines	698
12	Bituminous and other soft-coal mining	699	42	Trucking and warehousing for hire	1767
131	Crude petroleum production (including associated natural-gas production)	871	431	Bus lines other than city and suburban	698
			432	Air transportation (common carrier)	1767

See footnote at end of figure.

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FIGURE 6.1.—LIST OF BLS EMPLOYMENT SCHEDULE NUMBERS FOR NONMANUFACTURING INDUSTRIES (OTHER THAN CONTRACT CONSTRUCTION) ARRANGED IN ORDER OF SSA CLASSIFICATION CODE NUMBERS—Continued

SSA industry code No.	Industry title	BLS employment schedule No.
433	Taxicabs	1767
434	Pipe-line transportation (except natural gas)	1767
439	Highway passenger transportation, not elsewhere classified	698
44	Water transportation	1767
45	Services allied to transportation, not elsewhere classified	1767
46	Communication: Telephone, telegraph, and related services	[2] 698
48	Utilities: Electric and gas	698
49	Local utilities and local public services, not elsewhere classified	698
50	Full-service and limited-function wholesalers	787
51	Wholesale distributors, other than full-service and limited-function wholesalers	787
52	Wholesale and retail trade combined, not elsewhere classified:	
	(a) Wholesale portion of 52	787
	(b) Retail portion of 52	786
53	Retail general merchandise	786
54	Retail food and liquor stores	786
55	Retail automotive	786
56	Retail apparel and accessories	786
57	Retail trade, not elsewhere classified	786
58	Eating and drinking places	786
59	Retail filling stations	786
60	Banks and trust companies	1767
61	Security dealers and investment banking	1134
62	Finance agencies, no elsewhere classified	1767
63	Insurance carriers	1134
64	Insurance agents, brokers, and services	1134
65	Real estate	1767
66	Real estate, insurance, loans, law offices: any combination	1767
67	Holding companies (except real estate holding companies)	1767
701	Hotels	700
702	Rooming and boarding houses	1767
703	Camps	1767
704	Organization hotels and lodging houses (on membership basis)	1767
721	Laundries and laundry services	930
722	Cleaning and dyeing plants	930
723	Photographic studios (including commercial photography)	1767
724	Barber and beauty shops	1767
725	Shoe-repair shops and shoe-shine parlors (including hat cleaning)	1767
726	Funeral service (including crematories)	1767
727	Cleaning, pressing, alteration, and garment-repair shops	1767
729	Personal services, not elsewhere classified	1767
73	Business services, not elsewhere classified	1767
74	Employment agencies and commercial and trade schools	1767
75	Automobile repair services and garages	1767
76	Miscellaneous repair services and hand trades	1767
78	Motion pictures	1767
79	Amusement and recreation and related services, not elsewhere classified	1767
80	Medical and other health services	1767
81	Law offices and related services	1767
82	Educational institutions and agencies	[3] 1767
83	Other professional and social-service agencies and institutions	1767
86	Nonprofit membership organizations	1767
90	Private households	[4]
94, 95	Government	[5]
99	Establishments, not elsewhere classified	1767

[1] Not solicited. The BLS uses special surveys prepared by the Association of American Railroads and regular monthly employment reports of individual railways to the ICC.

[2] Western Union Telegraph Co. reports employment, pay roll, and hours on a joint FCC and BLS schedule, BLS 1915, by its operating regions. American Telephone and Telegraph Co. and its telephone subsidiaries (Bell System) also report employment on a joint FCC and BLS schedule, BLS 1916. Other (independent) telephone and telegraph companies should use Schedule 698.

[3] Only private educational institutions are solicited on BLS schedules.

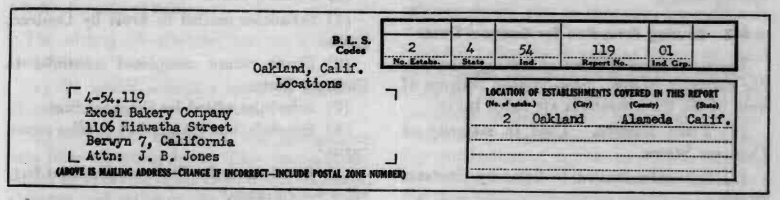
[4] Not solicited.

[5] Not solicited. Government data are solicited primarily by the Civil Service Commission and the Bureau of the Census. Reports from certain units of the Federal government are received by the Washington Office of the BLS.

6.3 IDENTIFICATION NUMBERS

6.3–1 "BLS Codes" on Schedules

Near the top and on the right side of each schedule is a boxhead labeled "BLS Codes." This contains space for: (a) the number of establishments; (b) the State code; (c) the industry code; (d) the report number; (e) the BLS tabulating industry group code; and (f) a blank box for any area or other codes which may be introduced. These "control codes" are punched into the IBM cards along with the employment, pay roll, and man-hour data for each report. The cards can then be sorted into various categories, thereby permitting the running of the tabulations and listings needed for the preparation of various employment, pay roll, and man-hour series. The following example shows the heading of a schedule with the codes entered in the boxhead.



6.3–2 State and Industry Codes

A list of the State codes used by BLS is given in figure 6.19. The industry codes used by BLS in its Employment Statistics Program are issued as needed in coding guides.

6.3–3 Length of Pay Period Codes

A column on the schedule is reserved for the LP or "length of pay period" code (see fig. 6.27). An appropriate code is entered on every schedule where the firm reports a pay period other than 1 week. (For those reporting a 1-week pay period an X is entered in this column.) The purpose of the LP code is to facilitate the use of machine tabulation methods in reducing reported pay-roll and man-hour figures to a 1-week basis. The pay-roll and man-hour data, as well as the LP codes, are entered on detail cards, and the cards are put in an IBM "multiplier." This machine multiplies the pay-roll and man-hour data by the appropriate conversion factors and punches the products in the fields allocated to them in the detail card.

6.3–4 Explanatory Codes

A column is reserved on each of the schedules for "explanatory codes." These are of two types: "Comment codes for analysis purposes," which relates to explanations made by the companies explaining month-to-month variations in employment, pay rolls and man-hours; and "Comment codes affecting office mechanics only," which is designed to facilitate handling of reports by the Washington office. A list of the explanatory codes currently in use is given in figure 6.20.

6.4 ROUTING OF SCHEDULES

6.4–1 Routing Procedure for Schedules Received Directly by BLS

Following is a step-by-step outline of the routing procedure for schedules received directly by the Washington office of BLS ("direct schedules"):

(a) Schedules mailed to firms from Branch of Employment Statistics.

(b) Firms return completed schedules.

(c) Schedules edited.

6.4–1 Routing Procedure for Schedules Received Directly by BLS—Continued

(d) Schedules assembled for Branch of Machine Tabulation.

(e) Schedules sent to Branch of Machine Tabulation.

(f) Punch cards prepared from schedules.

(g) Schedules returned to Branch of Employment Statistics.

(h) Schedules prepared for mailing for following month.

6.4–2 Routing Procedure for Contract States

There are three systems of routing schedules for Contract States. Step-by-step outlines of each of the three methods are listed below.

(a) FIRST METHOD. Used in majority of Contract States.

(1) Schedules mailed to firms by Contract State.

(2) Firms return completed schedules to Contract State.

(3) Schedules edited by Contract State.

(4) Schedule data transcribed to office record cards.

(5) Schedules mailed to BLS Branch of Machine Tabulation.

(6) Punch cards prepared from schedules.

(7) Schedules returned to Contract State by BLS Branch of Machine Tabulation.

(8) Schedules prepared for mailing for following month.

(b) SECOND METHOD.

(1) Schedules mailed to firms by Contract State.

(2) Firms return completed schedules to Contract State.

(3) Schedules mailed to BLS Branch of Employment Statistics.

(4) Schedules edited.

(5) Schedules assembled for Branch of Machine Tabulations.

(6) Schedules sent to Branch of Machine Tabulation.

(7) Punch cards prepared from schedules.

(8) Schedules returned to Contract State by Branch of Machine Tabulation.

(9) Schedules prepared for mailing for following month.

(c) THIRD METHOD.

(1) Schedules mailed to firms by Contract State.

(2) Firms return completed schedules to Contract State.

(3) Schedules edited by Contract State.

(4) Schedule data transcribed to office record cards.[2]

(5) Punch cards for State use prepared from office record cards.[2]

(6) Schedules prepared for mailing for following month.

(7) Periodic listings of the data are prepared by the Contract State.

(8) Listings mailed to BLS Branch of Machine Tabulation.

(9) Punch cards for Washington use prepared from listings.

6.4–3 Schedules To Be Handled Carefully

The BLS schedule is a 12-month shuttle form and must be handled monthly by the firm, the Contract State office, and the BLS Branch of Machine Tabulation. Moreover, it is kept on file and referred to frequently for a considerable period after the end of the year during which it was used for collecting data. Hence, it is important that it be handled carefully.

6.5 EDITING EMPLOYMENT AND PAY ROLL SCHEDULES

6.5–1 Introduction

Every month the Washington office receives approximately 75,000 employment and pay roll reports. Fewer than half of these reports are submitted directly to Washington; the remainder are received by the Contract State agencies and are forwarded to Washington for tabulation. The prompt processing of this huge number of schedules can be accomplished only by machine methods of tabulation. Such machine

[2] In some instances no office record cards are prepared and the punching is done directly from the schedules.

6.5–1 Introduction—Continued

methods depend on preassigned codes and predesignated fields allocated for specific information. Strict adherence to uniform procedure is essential if the edited and tabulated data for the United States as a whole are to be accurate and meaningful. The following instructions have been assembled as a guide for the Contract States when editing nonconstruction employment and pay roll schedules.

6.5–2 Purpose of Editing

The editing of schedules has the following purposes:

(a) To secure necessary codes on schedule. This insures accurate tabulation.

(b) To secure consistent and comparable data from reporting firms. This insures meaningful and reliable totals from which estimates, averages, and ratios can be secured.

(c) To secure allied information such as comments, changes in name and address of reporting firm, death of firm, etc. This yields necessary data for analyzing and interpreting State and national figures; keeping mailing lists up to date, etc.

6.5–3 Mechanics of Editing—Control Codes

The control codes should appear in the appropriate box heads. When editing a schedule begin by inspecting code boxes to see that proper codes are entered in every box. Codes are entered in appropriate boxes when new schedules are prepared. At that time the codes should be carefully checked with those shown on the last schedule. Afterwards, when schedules are returned with current reports, a cursory glance is all that is usually required. Schedules used for following up delinquent or late reports should be carefully inspected to insure correct codes in the proper boxes.

6.5–4 Mechanics of Editing—Employment, Pay Roll, and Man-Hour Data

Current employment, pay roll, and man-hour data for each report should be checked against the data reported for preceding months for comparability. Small variations in the data are to be expected. In general, changes in average hourly earnings of five cents or less and changes in average weekly hours of five hours or less can be accepted. For non-man-hour firms, changes of $5.00 per week or less in average weekly earnings are acceptable. For very large firms, however, these criteria should be restricted somewhat since such averages tend to remain more stable as the size of the firm increases and since such large firms have a relatively large weight in the industry figures. The criteria should also be restricted for relatively stable industries. Care must be taken when inspecting changes in average hourly earnings and average weekly hours to see that the variations are consistent with one another. If appropriate comments do not appear on the schedule, such reports should be returned to the firms for verification of figures or for the explanation of the changes. In seasonal industries and for those firms which in the past have explained unusual changes by "piecework, commissions, etc.," larger variations in hours and earnings may be accepted. Larger variations in averages may also be accepted whenever large changes in employment occur. The cause for such changes in employment, however, should be secured. If large variations are adequately explained by appropriate comments or wage changes, they should, of course, be accepted. When editing current data, the average hourly earnings and average weekly hours, in addition to being compared with the firm's averages for previous months, should also be compared with the same averages of other establishments in the same industry. In all cases, whenever any comment is furnished by the firm or known in the office, the appropriate code (see fig. 6.20) should be entered in red pencil in the column for explanatory codes.[2] The detailed comment submitted by the firm or known in the State office should also be entered on a comment sheet (see fig. 6.22), using a separate sheet for each BLS industry.

Care must be taken to insure that hours and

[2] The national schedules provide such a column. If a State schedule does not, then the explanatory code should be entered in red in the right-hand margin and encircled. This is the only instance in which an encircled figure is punched.

6.5–4 Mechanics of Editing—Employment, Pay Roll, and Man-Hour Data—Continued

pay roll shown are for the pay period reported. If average weekly hours indicate too short or too long a workweek, the schedule should be returned for questioning or verification. If hours reported cover a different period than the pay roll, then both need converting to weekly equivalents. Average weekly hours should also be watched for "nominal hours" (e. g., 40 per week per employee) reporters. Actual hours worked or paid for are requested on the schedules. "Nominal hours" are not to be used (encircle in red).

Since only whole numbers are punched, be sure to cross out, in red, any cents data appearing in the pay roll column or any fraction appearing in the man-hour or employee columns. If two employment figures are supplied, one for part-time and one for full-time, or one for weekly and one for monthly pay roll, they must be added and the total entered in red in the employment field. The component employment entries should of course be encircled in red as an indication to the card-punchers that these items are not to be picked up. If there are corresponding splits in the data for pay and hours, these data should be edited to a common basis (usually converted to weekly equivalents) and the edited data entered in the appropriate spaces.

6.5–5 Mechanics of Editing—Commissions

In trade and in insurance and brokerage industries, many firms pay commissions as well as regular salaries or wages. Such commission payments must be carefully watched since regular commissions for the current month are to be included and nonregular commission payments (quarterly, semiannual, annual) are to be excluded. Commissions earned in the preceding month but paid in the current month should not be used with current pay data but rather with the pay for the month in which the commissions are earned. This is necessary to avoid having seasonal earnings appear in the following month. (See also sections 6.5–17 (f) and (g).)

6.5–6 Mechanics of Editing—Women – All Employee Data

For those schedules showing production workers and women production workers as well as "all employee" data, special care should be taken in editing the report. It is important to distinguish between a firm that reports no women (zero or none) and one that does not report such data. In the first case a zero (0) should be entered in the women production worker column. If a firm enters "none", the "none" should be crossed out in red and a zero (0) entered. For those reports that leave the women production worker column blank, the "all employee" figures should be compared with the production worker both sexes figures to indicate whether the women production workers should be zero. If the women "all employee" figure is very small and the difference between the "all employee" and production worker figure is greater than the women "all employee" figure, it usually is fairly safe to estimate the women production workers as zero rather than to assume the report as a nonwomen reporter. For example, assume the following report is received:

Month	Production workers		All employees	
	Both sexes	Women	Both sexes	Women
January	30	----------	37	3
February	29	----------	36	2
March	31	----------	40	3

It is fairly safe to estimate the women production workers as zero in this example. Such "0"s should be entered in red pencil as women production workers. By not paying sufficient attention to such relationships some zero reports will be processed as nonwomen reports. This will affect the national industry women ratios since a nonreporter is excluded from the ratio tabulations while zero women reporters are included and have a tendency to lower the women ratios.

In 1947, women production (or nonsupervisory) workers were dropped from all schedules except manufacturing but there is a column

6.56–6 Mechanics of Editing—Women–All Employee Data—Continued

under "All Employees" for women data. In any listing, edited schedule, late report, correction form, or schedule substitute, the columns for women (production workers or all employees) should carry an X (or symbol if on a machine listing) or an actual report each month, depending on the information supplied by the firm. A zero should be used for those firms which report that no women are employed. An X should be shown each month for those reports not containing this information.

6.5–7 Mechanics of Editing — Production Worker – All Employee Data

Care must also be taken to compare production workers with the "all employee" data reported to see that the "all employee" figure is larger than the production worker figure. Reports in which the production worker figure is equivalent to or larger than the "all employee" figure should be questioned. (Common errors are (1) the reporting of nonproduction workers instead of "all employee" data, (2) the repetition of production workers for "all employee" data.)

6.5–8 Mechanics of Editing—Strikes

When a firm is out on strike the actual report should be used. Edit data same as for any other month, enter explanatory code on schedule, and copy comment to "comment sheet." If the firm is completely shut down, the drop to zero should be taken. In such cases it is very important to enter zeros in every field in which data were available for the preceding month. Be sure to enter the explanatory code on the schedule. Send such schedules to the Branch of Machine Tabulation along with the regular schedules. If a firm is completely shut down for several months, the schedule showing zeros in each field for each month should be transmitted to the Branch of Machine Tabulation every month until such time as the firm resumes operation and commences to submit regular reports.

6.5–9 Mechanics of Editing—Temporary Closing

When a firm reports a temporary closing, the drop to zero is taken. Be sure to enter appropriate comment code on the schedule. It is important that a zero be entered in every field in which the firm submitted data in the preceding month. The schedule should be submitted to Washington every month with zeros entered as current month data until the firm resumes operations and commences to submit regular reports. If the firm is a seasonal one and usually closes down for several months (such as a canning factory), the schedule should not be returned to the firm every month but the schedule with zeros entered as current month's report and the appropriate explanatory code should be sent to the Branch of Machine Tabulation for inclusion in the BLS tabulations. This procedure is necessary to keep such firms from appearing as delinquent firms.

6.5–10 Schedule Substitutes

Schedules should be mailed so that they reach the reporting firms on the 15th of the month for the entry of current month data. Reports received in the State office about the 12th of the following month (i. e., on February 12 with a January report) cannot be forwarded to Washington, returned to the State office, and still be sent to the firm in time for the regular mailing for the following month. For such reports schedule substitute forms, figure 6.23, should be employed to transmit the report to Washington so as to free the schedule for the regular mailing to the respondent. These forms should show all codes and both the immediately preceding and current month data. Whenever such a form is prepared, the current month entry on the schedule should be green checked in both the left- and right-hand margins to denote that the data were punched from a schedule substitute. See following illustration denoting regular punching for February and schedule substitute punching for March. Since the final tabulations in Washington close about the 26th,

6.5–10 Schedule Substitutes—Continued

schedule substitutes should be employed from about the 12th to the 20th of the month.

Year and month	Period reported		Production and related workers				All employees	
	From	To	Number		Pay roll	Hours	Both sexes	Women
			Both sexes	Women				
1948								
January [1]	8	14	16	1	627	627	18	2
February [2]	7	13	18	2	720	718	20	2
March [1]	11	16	19	3	750	749	22	[1] 4

[1] Checked in green in margin.
[2] Checked in red in margin.

Schedule substitutes should be transmitted to the Branch of Machine Tabulation the same as schedules but in separate blocks (see section 6.5–15 (e)). The distinctive color of the schedule substitute form is an indication to the BLS card punchers that current reports are involved and should receive priority in punching.

6.5–11 Late Reports

Since, for the current month, data are punched in Washington from either schedules or schedule substitutes, reports received for prior months or late for the last month's tabulation (identified by the absence of red or green checks on the schedule) should be forwarded on "late report" forms (see figure 6.24). The late report form is similar to the schedule substitute form except that all pay and hours should be converted to a one-week basis. The LP code on a late-report form is always "X" (one week). A late report form showing all codes and reported data for both the preceding and current month is needed for every month for which the report is being submitted; i. e., if late reports are to be submitted for February and March, the first late report form should show all codes and reported data (converted to weekly equivalents) for both January and February—the second late report form should show all codes and data for February and March. When preparing a late report form, place a single green check in the left-hand margin of the schedule alongside the month copied to denote that the information was punched from another source (see entry for January in above illustration). Late report forms should be transmitted to the Branch of Machine Tabulation the same as schedule substitutes, but should be kept in separate blocks (see section 6.5–15 (e)) keeping right side of form up and if possible keeping all late reports for the same month together. Late report forms should not be saved but should be mailed every few days with special emphasis to catch the tabulation closing dates of the BLS in Washington.

6.5–12 Correction Forms

When a firm changes its report for a previous month which has been transmitted to Washington and punched (identified by red or green check marks on the schedule) it is necessary to prepare a "correction" form (see figure 6.25) to have the original data changed. When preparing correction forms, all pay and hours data are to be edited to a weekly basis and the correct information—both codes and data—are entered on the lines reserved for "corrected" data. On the lines marked "original," only the incorrect or missing items are entered. All "original" items not shown are assumed to be the same as the "corrected" items. Under remarks enter the two-month comparison in which the original data were sent to Washington. For example, if the original data were sent for the January–February and for the February–March tabulations the note "sent for January–February and February–March tabulations" would appear under remarks, column 18. If, however, the original data were sent only for the January–February tabulation and the corrected data sent for the February–March tabulation, the note would read "sent only for January–February tabulation." Correction forms are to be sent to:

Chief, Branch of Employment Statistics,
U. S. Bureau of Labor Statistics,
Washington 25, D. C.

(1)

[*Note.*—The number (1) is a sorting number for the BLS mail room.]

6.5–13 Name Changes

All changes in firm name, address, or in location of establishments covered by the report are

6.5–13 Name Changes—Continued

to be transmitted periodically (preferably once a month) to the Washington office by means of a memorandum form (see fig. 6.26) which will be provided by the Washington office. Address the memorandum to Chief, Branch of Employment Statistics.

6.5–14 Cancellation of Reports

The form mentioned above (fig. 6.26) should also be used for reporting cancellations to Washington. In each case give date and reason for cancellation: e. g., "Out of business;" "Refusal to report any longer."

6.5–15 Tabulation Closing Dates

(a) Tabulation closing dates in Washington, at present, are scheduled on the 1st, 15th, and 26th of the month following the month to which the report relates.

(b) The closing of the 1st is used for securing the national preliminary report. Special effort should be made to transmit as many schedules as possible to Washington before this closing date. Schedules should not be saved until then but should be transmitted every few days so that the incoming mail from the Contract State agencies does not swamp the punching section. In the past the Branch of Machine Tabulation has received as many as 10,000 schedules (both direct and Contract State) in the 2 days preceding this closing date. Such a volume of schedules delays the tabulations.

(c) Since the tabulations of 75,000 reports takes considerable time and would, therefore, delay the final tabulations necessary for the regular releases, a closing as of the 15th has been set to summarize all available reports for the current month. These summaries replace individual reports in the final tabulations. The more complete the summaries, the more preliminary analytical work can be performed and the more quickly the final tabulations can be prepared. Special effort should be made to transmit all available reports to reach the Washington office by the 15th.

(d) The final tabulation closing date is usually about the 26th. At this time the summaries secured on the closing of the 15th are combined with all residual reports received after the 15th and the final tabulations are prepared. Special effort should be made to transmit all available reports (schedule substitutes, late reports, or schedules) to reach Washington by the 26th.

(e) Each shipment of current schedules, schedule substitutes, and late report forms (not correction forms) should be accompanied by a "block control" slip (figure 6.21). The following items should be filled in:

(1) *Project title.* The BLS project code, 2102, for employment, pay, and hours statistics should be entered here.

(2) *Block number.* These numbers should be assigned consecutively throughout the calendar year beginning with "1" for the first block of schedules submitted with January data. The block numbers are used in Washington for control purposes and may sometimes be changed in Washington for work assignment purposes which have no significance for the Contract States. Schedules, schedule substitutes, and late report forms should be transmitted in separate blocks.

(3) *First and last sheet number.* Enter here the count of schedules, schedule substitutes, or late report forms included in the block. It is preferred that blocks contain no more than 250 items.

(4) *Date transmitted.* Enter here the date of mailing of the block.

The other items on the slip are for use in Washington and should not be filled in.

(f) Schedules, schedule substitutes, and late report forms should be sent by registered mail to—

Branch of Machine Tabulation,
Bureau of Labor Statistics,
1723 F Street NW.,
Washington 25, D. C.

Postal regulations require that registered packages of the above material must not exceed four pounds.

6.5–16 Comments

Proper evaluation, interpretation, and analysis of the national industry data require the use

6.5–16 Comments—Continued

of comments reported by respondents. Since the Washington office prepares national industry figures, comments are desired on an industry basis. Whenever a significant comment is received or is known at the State office, it should be entered on a comment form (see fig. 6.22). These forms should be sent every few days to Chief, Branch of Employment Statistics. Explanatory codes should, of course, be entered in the appropriate columns on each schedule. Use a separate sheet for each BLS industry to facilitate the assembly of the comments by industry. Insignificant comments such as "hired one employee" need not be sent. When evaluating comments, make sure that the comment is appropriate; i. e., comment may read "seasonal expansion" but report may show a drop in employment, pay, and hours.

6.5–17 Length of Pay Period

(a) The LP (length of pay period) codes should receive special attention. Respondents are requested to report data for one pay period, preferably 1 week. Many reports, however, relate to other than a 1-week period. Such reports must be converted to weekly equivalents.

(b) The following method of deriving the LP code will be used:

(1) Under section III (reserved for comments, operating days, etc.) the schedules carry provisions for:

(i) Number of days worked by majority of employees during week ending nearest the 15th, and

(ii) Number of days worked by majority of employees during pay period reported.

(2) The "conversion factor" secured by dividing (i) by (ii) above is used to secure weekly equivalent pay roll and man-hour reports. For example, if a firm reported a 1–15th pay period and reported that its employees worked 11 days during that period and 6 days during the week ending nearest the 15th, then the conversion factor would be 6/11=0.55. The LP code is the same, except that the whole number (55) is used. Firms are requested to supply work schedules to the nearest half day.

(c) To avoid having to make a division every time a new LP code is needed, the table shown in figure 6.27 is used. In the stub are listed the number of days worked during the pay period reported. The column headings show the number of days worked in the week ending nearest the 15th of the month. To find the LP code corresponding to 6/11, choose the number in the column labeled 6 opposite 11 in the stub. The desired LP code is 55 (and the conversion factor is therefore 0.55). The LP code is entered in the proper column of the BLS schedule.

(d) It should be noted that the LP code will vary not only for each individual firm but from month to month. It is therefore very important that the information about number of days worked be supplied every month by each firm that reports data for other than a 1-week period. Among the causes of variations in the number of days worked are strikes, holidays, temporary shut-downs, etc.

(e) Whenever an establishment is closed during the entire week of the 15th, the employment, pay-roll, and man-hour data must be hand edited as follows:

(1) Use LP code X (1 week).

(2) Encircle in red all entries for the month dealing with the production worker (or nonsupervisory employee), pay roll and man-hour section of the schedule.

(3) Enter, in red, 0's for each entry encircled.

(4) Encircle, in red, "all employee" data.

(5) Edit in, in red, a new "all employee" figure by subtracting from the reported "all employee" figure the number reported as "production workers." For those schedules on which women "production workers" are not requested, the women "all employee" figures should be edited with an X.

(f) When a firm submits data for two different pay periods on one schedule (e. g., regular pay on a weekly basis, commissions on a monthly basis), it is necessary to convert the data to weekly equivalents, then total both pay items and enter the total in red in the columns provided for such data. It is important in all such cases that the hours should also be converted to weekly equivalents and entered in red in the column reserved for edited hours. The LP code should be entered as X (1 week).

6.5–17 Length of Pay Period—Continued

(g) If multiple pay roll data are reported for the same period (i. e., regular pay and commission both for the half month) then the pay roll items need not be converted to weekly equivalents. These should be added as reported and entered in red in the editing columns provided. Select the appropriate LP code and enter it in the proper column for housing the LP code.

(h) A few firms report for a period longer than a week which does not include the week ending nearest the 15th (such pay periods as 1st–10th, 20th–30th). If the firm uses this pay period regularly, the column on the schedule headed "Number of days worked by majority of employees during week ending nearest the 15th," may be changed by hand to read "* * * Week ending nearest the end of pay period reported." For example, a firm reporting a pay period of the 1st–10th should be asked to furnish the number of days for the week ending nearest the 10th. With this information it will be possible to determine an LP code in the manner described in (c). If a firm reports such a pay period for 1 month only, it will be necessary to write to the firm asking them for data for a pay period including the week ending nearest the 15th.

6.5–18 Special Handling of Reports Covering Salaried Employees

(a) Schedules on which salaried employees are reported for monthly or half-monthly pay periods require special editing. This occurs primarily in such industries as utilities, finance and insurance, and in some trade industries. The method described in section 6.5–17 (c) of deriving conversion codes leads to weekly equivalent pay roll figures which vary (inversely) with the length of the pay period. Since salaried employees are paid the same amounts each pay period, regardless of length, variations in length of pay period lead to misleading variations in weekly equivalent pay roll figures when the standard conversion codes are used. The following table illustrates the point:

Comparative Weekly Pay Roll Data for Salaried Employees

Pay period	Reported days worked		Employment	Reported pay roll	Standard [1] conversion factor	Converted weekly pay roll equivalent	
	Week of 15th	Report period				Based on standard factor	Based on "normal" [2] factor
Mar. 1–15	5	10	20	$2,000	0.50	$1,000	$920
Apr. 1–15	5	11	20	2,000	.45	900	920
May 1–15	5	11	20	2,000	.45	900	920
June 1–15	5	10	20	2,000	.50	1,000	920
July 1–15	5	11	20	2,000	.45	900	920

[1] Standard factors are based on days worked (or paid for) in week of 15th and in report period as explained in section 6.5–17(c).
[2] Normal factor (0.46) explained in 6.5–18(b).

(b) To eliminate these misleading pay roll fluctuations, conversion factors to reduce pay rolls to a "normal" weekly equivalent must be used. The "normal" conversion factor for semimonthly pay roll periods is 0.46, while that for monthly periods is 0.23. The method of deriving them is explained in section 2, volume III. The effect of using the "normal" factor can be seen in the last column of the above table.

(c) In those cases in which man-hours are not requested (insurance and security brokerage and industries covered by the general schedule), the "normal" conversion factor may be entered in the LP column just as in the case of standard factors. However, *the "normal" factor will be the same every month.* To avoid editing errors, some symbol like "*N*" may be entered in the column head of the LP column of a schedule to indicate that the "normal" factor is to be used in that report.

(d) In those cases in which man-hours are requested, the use of the "normal" factor for reducing pay rolls introduces a complication with respect to the reduction of the man-hour total to a weekly equivalent. The number of man-hours reported for the period, unlike pay rolls, will reflect the incidence of regular nonwork days (Saturdays and Sundays; holidays are no problem since salaried employees are paid for them and holiday hours should be re-

6.5–18 Special Handling of Reports Covering Salaried Employees—Continued

ported). *Hence, the standard conversion factors described in 6.5–17 (c) should be used to reduce man-hours.* If the "normal" factor were used, the weekly man-hour equivalent would show fluctuations which in fact do not exist. The following table illustrates the point:

Pay period	Reported days worked		Reported data			Weekly equivalents (using "normal" factor)	
	Week of 15th	Report period	Employment	Pay roll	Man-hours	Pay roll	Man-hours
Mar. 1–15...	5	10	20	$2,000	1,600	$920	720
Apr. 1–15...	5	11	20	2,000	1,760	920	792
May 1–15...	5	11	20	2,000	1,760	920	792
June 1–15...	5	10	20	2,000	1,600	920	720
July 1–15...	5	11	20	2,000	1,760	920	792

The March and June man-hour equivalents, secured by the application of a "normal" conversion factor are too low because actually there were only 10 workdays in these report periods. The resulting converted man-hour weekly equivalents will affect average hourly earnings and average weekly hours and will introduce monthly variations which distort the results.

(e) Since the pay roll and man-hour figures must be handled differently, in the cases described in (d), the report for salaried workers must be hand edited to a weekly basis and the LP code X (one week) used. The reported pay and hours data on the schedule should be encircled in red and the hand edited figure entered in the appropriate spaces, i. e., in the special boxes provided on some schedules for edited data, or immediately to the right of the encircled data; in the latter case, the edited figures should be entered in red as shown in the following illustration:

Report period	LP	Employment	Pay roll	Hours	All employees	
					Both sexes	Women
Mar. 1–15...	X	20	[1] $2,000 [2] 920	[1] 1,600 [2] 800	22	12
Apr. 1–15...	X	20	[1] 2,000 [2] 920	[1] 1,760 [2] 792	22	12

[1] These figures should be encircled in red.
[2] These figures should be entered in red.

(f) Contract States submitting listings to Washington instead of schedules may follow the procedure of encircling in red the unedited pay roll and man-hour figures on the listings and inserting the correct figures in red immediately to the right of each unedited figure. Or, edited figures may be hand entered on office record cards for subsequent punching. In either event, the listing to Washington should show data edited according to the above instructions.

(g) The following examples indicate the results obtained by using "differentiating factors" for pay rolls and man-hours.

CASE I.—*Half monthly report*

Pay period of report	Days worked or paid for			Reported data		Reduced data	
	Mid-week of month	Report period	Employment	Pay roll	Man-hours	Pay roll [1]	Man-hours [2]
Mar. 1–15...	5	10	20	$2,000	1,600	$920	800
Apr. 1–15...	5	11	20	2,000	1,760	920	792
May 1–15...	5	11	20	2,000	1,760	920	792
June 1–15...	5	10	20	2,000	1,600	920	800
July 1–15...	5	11	20	2,000	1,760	920	792

See footnotes at end of Case II.

CASE II.—*Monthly report*

Pay period of report	Days worked or paid for			Reported data		Reduced data	
	Mid-week of month	Report period	Employment	Pay roll	Man-hours	Pay roll [1]	Man-hours [2]
Mar. 1–31...	6	26	20	$4,000	4,160	$920	957
Apr. 1–30...	6	26	20	4,000	4,160	920	957
May 1–31...	6	27	20	4,000	4,320	920	990
June 1–30...	6	26	20	4,000	4,000	920	960
July 1–31...	6	27	20	4,000	4,320	920	990

[1] When report is for a half-month, the "normal" factor is 0.46; for a whole month the factor is 0.23.
[2] Standard factors based on days worked during mid-week and pay period used.

As can readily be seen in each of the preceding illustrations even though the reported man-hour data show variations up to 10 percent while the pay roll is constant, the use of "differentiating factors" yields weekly pay and hours data that are very constant. As a result average weekly earnings, average weekly hours and average hourly earnings are comparable from month to month and do not show any marked fluctuation resulting from statistical manipulation.

(h) IDENTIFYING SALARIED REPORTS. It is not expected that a drive be conducted to locate

6.5–18 Special Handling of Reports Covering Salaried Employees—Continued

all half-month and monthly reports on salaried employees at the expense of other work on employment estimates. However, some of these reports may be spotted quite easily. Systematic searching for others (including asking firms for explanations of questionable cases) may be carried on as time permits. Salaried reports may be identified in the following ways:

(1) *Analysis of pay and hours reports.* An analysis of a salaried report will usually show the pay roll fairly constant but the total of the hours worked fluctuating with the number of working days in the report period. For monthly reporters, because of the shortness of February, a review of the January-February-March reports will help spot salaried reporters. For semimonthly reporters, a set of reports for semimonths having a 2-week-and-a-day working period and a 2-week working period will prove helpful (e. g., January and February, 1948).

(2) *Work-week information.* Several reporters have shown a 7-day workweek if their employees are on a salaried basis. Seven-day workweek reports should be examined to see if they are salaried reports.

6.6 NATIONAL AND GROUP REPORTERS

6.6–1 Establishments in Contract States Reporting Directly to Washington

Certain firms having establishments in various Contract States send their reports for these establishments directly to Washington. These are of two types:

(a) Companies which have formally requested that all their employment reports to BLS be submitted to the Washington office.

(b) Companies which have not yet given the Bureau permission to allow the Contract States to collect reports for establishments in those States.

A list of these firms is given in figure 6.28. Under no circumstances are these companies to be contacted directly by a State office for sample expansion. Should a State desire to add to its sample a report from an establishment of one of these companies, the Washington office should be requested to obtain the report. The State offices will be notified of additions to this list whenever they occur.

6.6–2 Transcripts of Data for These Reports

The Washington office will send the Contract States transcripts of employment, pay roll, and man-hour data for establishments in the State of firms which report directly to the Washington office. These reports can then be used in the various tabulations prepared by the States for their own use and for the BLS employment estimates. A copy of the form (BLS ES–6) is shown in figure 6.29. It will be noted that this is a 12-month shuttle form and must be returned to the Washington office every month.

6.7 MISCELLANEOUS NOTES ON EDITING

6.7–1 Duplicate Schedules

Sometimes a firm may send in two schedules for the same establishment. This may happen when one or more second request forms (see sec. 7.3–6 (b)) have been mailed to the company. If two or more schedules are received for the same establishment, for the same periods, the two sets of data should be compared. If they are significantly different and no explanation is given on the schedule, a letter should be sent to the firm asking for an explanation of the discrepancy. If the data originally received are incorrect, the necessary correction forms (see sec. 6.5–12) should be made out and sent to the Washington office. The correction should also be noted in the records maintained in the State office. The policy for revising the State esti-

6.7–1 Duplicate Schedules—Continued

mates for corrections is outlined in section 5, volume II of the *Manual*.

When two schedules for the same establishment have been received, the data should be transferred to one schedule and the other destroyed. The schedule selected for further mailing should be the one which contains the correct data, if there is any discrepancy between the two sets of figures. Otherwise, the schedule mailed should be the one in the best physical condition.

6.8 STORAGE AND DISPOSITION OF SCHEDULES

6.8–1 Schedules Not To Be Destroyed

Contract States should save the completed schedules for (a) checking purposes at the time new benchmarks are being prepared and (b) answering questions on the State estimates which may be raised by the Washington office. Schedules should not be destroyed. If a State agency can no longer store them, they should be forwarded with a covering memorandum to Washington.

FIGURE 6.2
FRONT

B. L. S. 790 — Budget Bureau No. 44-R288.4. Approval expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

MANUFACTURING — **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes: No. Estabs. | Master | Ind. | Memorandum No. | Unit Code

LOCATION OF ESTABLISHMENTS COVERED IN THIS REPORT (No. of estabs.) (City) (County) (State)

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

I. PRINCIPAL PRODUCTS (Please list in order of importance of annual sales value)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: From (2)	Through (3)	DO NOT USE (4)	L/P (5)	Production and Related Workers: Number: Both Sexes (6)	Women (7)	Pay Roll (8)	Hours (9)	All Employees: Number: Both Sexes (10)	Women (11)	DO NOT USE: Prod. Cycle (12)	Int. (13)
(1)*												
1947 Dec.			—									
1948 Jan.			—									
Feb.			—									
Mar.			—									
Apr.			—									
May			—									
June			—									
July			—									
Aug.			—									
Sept.			—									
Oct.			—									
Nov.			—									
Dec.			—									

This form used for manufacturing industries in SIC groups 19 through 39.

III. DAYS WORKED.

IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month	Number of Days Worked (including paid holidays) by Majority of Production Workers (nearest ½ day): During Week Ending Nearest 15th of Month (15)	During Pay Period Shown in Col. 2-3 if Longer Than a Week (16)	COMMENTS: Indicate Below the Main Factors Responsible for Changes in Employment, Pay Rolls, or Hours From Preceding Month, Such as: Hours or Less Overtime, Seasonal Expansion or Contraction, Partial Shut-Down for Repairs or Inventory-Taking, Lay-Offs Due to Contract Completion or Cancellation, Strikes Due to New Contracts Undertaken, Partial Shut-Down for Changes or Alterations of Facilities, Hiring After Reconversion of Facilities, Strikes, Holidays, Etc. (17)	General Wage-Rate Changes (not Individual Changes for Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Please Check: Increase (18)	Decrease (19)	Approximate Number of Production Workers Affected (20)
(14)						
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May						
June						
July						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (Title) (Phone)

16—49272-2

B. L. S. 790
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

FIGURE 6.2
BACK

INSTRUCTIONS

Data on production and related workers should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as production and related workers.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF PRODUCTION AND RELATED WORKERS—BOTH SEXES.—Enter all full- and part-time production and related workers on your pay roll who worked or received pay for any part of the pay period reported. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers even though these may be carried on your active rolls.

The term "production and related workers":

Includes working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e. g., power plant), and recordkeeping, and other services closely associated with the above production operations.

Excludes supervisory employees (above the working foreman level), their clerical staffs, and other groups of employees engaged in the following activities: Executive, purchasing, finance, accounting, legal, personnel, cafeterias, medical, professional, and technical activities, sales, sales-delivery, advertising, credit, collection, and in installation and servicing of own products, routine office function, factory supervision (above the working foreman level), routemen and employees on your pay roll engaged in new construction and *major* additions or alterations to the plant who are utilized as a separate work force (force account construction workers).

Column 7. NUMBER OF PRODUCTION AND RELATED WORKERS—WOMEN.—Report number of women production and related workers included in column 6.

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the production and related workers reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues but after deductions for damaged work. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payment in kind and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the production and related workers reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including production and related workers as well as those groups excluded from this category in the instructions for column 6. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of production and related workers performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of production and related workers affected.

U. S. GOVERNMENT PRINTING OFFICE 16—49272-2

FIGURE 6.3
FRONT

B. L. S. 701

Budget Bureau No. 44-R182.4.
Approval expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

METAL MINING — **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes

(No. Estabs. | State | Ind. | Report No. | Ind. Div.)

LOCATION OF OPERATIONS COVERED IN THIS REPORT
(No. of estabs.) : (City) (County) (State)

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

I. METALS IN ORE MINED
(Please list in order of importance of annual sales value)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: From— (2)	Through— (3)	DO NOT USE (4)	L/P (5)	Production and Related Workers: Number — Includes all Production Workers Who Worked or Received Pay for Any Part of Period Reported (6)	DO NOT USE (7)	Pay Roll — Includes Overtime and Pay for Sick Leave, Holidays, and Vacations Taken During Pay Period Reported (exact amount) (8)	Hours — Total Number of Hours Actually Worked Plus Hours Paid for Sick Leave, Holidays, and Vacations in Period Reported (exact fractions) (9)	All Employees: Number — Includes all Persons Who Worked or Received Pay for any Part of Period, Regardless of Type of Work Performed (Include those reported in column 6) Both Sexes (10)	Women (11)	DO NOT USE Expl. Code (12)	Init. (13)
1947 Dec.						X						
1948 Jan.						X						
Feb.												
Mar.												
Apr.												
May						X						
June						X						
July						X						
Aug.						X						
Sept.						X						
Oct.						X						
Nov.						X						
Dec.						X						

This form used for the industries in SSA group 10.

III. DAYS WORKED.

IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month	Number of Days Worked (including paid holidays) by Majority of Production Workers (answer in day) During Week Ending Nearest 15th of Month (14)	During Pay Period Shorter or Longer Than a Week (15)	Comments — Indicate Below the Main Factors Responsible for Changes in Employment, Pay Rolls, or Hours From Preceding Month. Such as: Seas. or Less Overtime, Seasonal Suspension of Construction, Partial Shut-Down for Repairs, Inventory-Taking, Lay-Offs Due to Contract Completion or Cancellation, Strikes or Lockouts, Shortage of Raw Materials, Partial Shut-Down by Choice or Alterations of Facilities, Starting After Reconversion of Facilities, Softer, Bonuses, Etc. (17)	General Wage-Rate Changes (not Individual Changes by Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Please Check: Increase (18)	Decrease (19)	Approximate Number of Production Workers Affected (20)
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May						
June						
July						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (Date) (Position)

16—40452-2

B. L. S. 701
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

FIGURE 6.3
BACK

INSTRUCTIONS

Data on production and related workers should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as production and related workers.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF PRODUCTION AND RELATED WORKERS.—Enter all full- and part-time production and related workers on your pay roll who worked or received pay for any part of the pay period reported. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers even though these may be carried on your active rolls.

The term "production and related workers":

Includes working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in excavation, haulage, hoisting, ventilation, drainage, processing, inspection, storage, handling, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e. g., power plant), and record-keeping and other services closely associated with the above production operations.

Excludes supervisory employees (above the working foreman level), their clerical staffs, and other groups of employees engaged in the following activities: Executive, purchasing, finance, accounting, legal, personnel, cafeterias, medical, professional and technical activities, sales, sales-delivery, advertising, credit, collection, and in routine office function, supervision (above the working foreman level), and employees on your pay roll engaged in new construction and major additions or alterations to the plant who are utilized as a separate work force (force account construction workers).

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the production and related workers reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues but after deductions for explosives or other supplies furnished by the company. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payment in kind, and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the production and related workers reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including production and related workers as well as those groups excluded from this category in the instructions for column 6. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of production and related workers performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than one week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of production and related workers affected.

U. S. GOVERNMENT PRINTING OFFICE 16—40452-2

FIGURE 6.4
FRONT

B. L. S. 699

Budget Bureau No. 44-R067.4.
Approval expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

ANTHRACITE AND BITUMINOUS COAL MINING **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes: No. Estabs. | State | Ind. | Report No. | Ind. Grp.

LOCATION OF OPERATIONS COVERED IN THIS REPORT (No. of mines) (City) (County) (State)

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

I. KIND OF COAL MINED .....
(Please list in order of importance of annual sales value)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: From— (1)	Through— (2)	Do Not Use (4)	Do Not Use (5)	Production and Related Workers: Number (6)	Do Not Use (7)	Pay Roll (8)	Hours (9)	All Employees: Number: Both Sexes (10)	Women (11)	Do Not Use: Estl. Code (12)	Do Not Use: Init. (13)
1947 Dec.						X						
1948 Jan.												
Feb.												
Mar.												
Apr.						X						
May						X						
June						X						
July						X						
Aug.						X						
Sept.						X						
Oct.						X						
Nov.						X						
Dec.						X						

This form used for the industries in SSA groups 11 and 12.

III. DAYS WORKED.

Year and Month	Number of Days Worked (Including paid holidays) by Majority of Production Workers Covered by Roll: During Week Ending Nearest 15th of Month (15)	During Pay Period Shown in Cols. 2-3 If Longer Than a Week (16)
1947 Dec.		
1948 Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		

IV. COMMENTS AND WAGE-RATE CHANGES.

Comments: Indicate Below the Main Factors Responsible for Changes in Employment, Pay Rolls, or Hours From Preceding Month, Such as: More or Less Overtime, Seasonal Employment or Curtailment, Partial Shut-Downs for Repairs or Inventory Taking, Lay-Offs Due to Contract Completion or Cancellation, Hiring Low to Meet Contracts Undertaken, Partial Shut-Downs for Changes or Alterations of Facilities, Hiring After Reinstallation of Facilities, Strikes, Holidays, Etc. (17)	General Wage-Rate Changes (see Individual Changes for Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Please Check: Increase (18)	Decrease (19)	Approximate Number of Production Workers Affected (20)

(Signature of person making report) (Title) (Telephone)

16—69862-6

FIGURE 6.4
BACK

B. L. S. 699

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on production and related workers should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as production and related workers.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF PRODUCTION AND RELATED WORKERS.—Enter all full- and part-time production and related workers on your pay roll who worked or received pay for any part of the pay period reported. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers even though these may be carried on your active rolls.

The term "production and related workers":

Includes working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in excavation, haulage, hoisting, ventilation, drainage, processing, inspection, storage, handling, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e. g., power plant), and record-keeping and other services closely associated with the above production operations.

Excludes supervisory employees (above the working foreman level), their clerical staffs, and other groups of employees engaged in the following activities: Executive, purchasing, finance, accounting, legal, personnel, cafeterias, medical, professional and technical activities, sales, sales-delivery, advertising, credit, collection, and in routine office function, supervision (above the working foreman level), and employees on your pay roll engaged in new construction and *major* additions or alterations to the plant who are utilized as a separate work force (force account construction workers).

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the production and related workers reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues but after deductions for explosives or other supplies furnished by the company. Include portal-to-portal pay, pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payment in kind, and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the production and related workers reported in column 6, plus hours for which portal-to-portal pay is received. Include hours paid for sick leave, holidays, and vacations taken during pay period reported.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including production and related workers as well as those groups excluded from this category in the instructions for column 6. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of production and related workers performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of production and related workers affected.

U. S. GOVERNMENT PRINTING OFFICE 16—69862-6

FIGURE 6.5
FRONT

B. L. S. 606. Budget Bureau No. 44-R264. Approval expires January 31, 1948.

REPORT ON EMPLOYMENT AND PAY ROLL

QUARRYING AND NONMETALLIC MINING — **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes: No. Estabs. | State | Ind. | Report No. | Ind. Cov.

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

LOCATION OF OFFICES COVERED IN THIS REPORT (No. of estabs.) (City) (County) (State)

I. PRINCIPAL PRODUCTS MINED OR QUARRIED (Please list in order of importance of annual sales value)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: From— (2)	Through— (3)	Do Not Use (4)	L/P (5)	Production and Related Workers: Number (6)	Do Not Use (7)	Pay Roll (8)	Hours (9)	All Employees: Number (10) Both Sexes	Women (11)	Do Not Use (12)	(13)
1947 Dec.			—			X						
1948 Jan.			—			X						
Feb.			—									
Mar.			—									
Apr.			—									
May			—			X						
June			—			X						
July			—			X						
Aug.			—			X						
Sept.			—			X						
Oct.			—			X						
Nov.			—			X						
Dec.			—			X						

This form used for the industries industries in SSA group 14.

III. DAYS WORKED.

Year and Month	Number of Days Worked (including paid holidays) by Majority of Production Workers (nearest to day) During Week Ending Nearest 15th of Month (14)	During Pay Period Reported in Col. 2-3 If Longer Than a Week (15)
1947 Dec.		
1948 Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		

IV. COMMENTS AND WAGE-RATE CHANGES.

Comments (Indicate Below the Main Factors Responsible for Changes in Employment, Pay Rolls, or Hours From Preceding Month, Such as: More or Less Overtime, Seasonal Expansion or Contraction, Partial Shut-Downs for Repairs or Inventory-Taking, Lay-Offs Due to Material Shortages, Curtailment or Cancellation, Hirings Due to New Contracts Undertaken, Additional Shifts Started, Resignations or Absenteeism of Facilities, Hiring After Restoration of Facilities, Strikes, Holidays, Etc.) (17)	General Wage-Rate Changes (and Individual Changes for Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Fiscal Month: Increase (18)	Decrease (19)	Approximate Number of Production Workers Affected (20)
1947 Dec.			
1948 Jan.			
Feb.			
Mar.			
Apr.			
May			
June			
July			
Aug.			
Sept.			
Oct.			
Nov.			
Dec.			

(Signature of person making report) (Over) (Position)

16—46872-5

FIGURE 6.5
BACK

B. L. S. 606
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on production and related workers should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as production and related workers.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF PRODUCTION AND RELATED WORKERS.—Enter all full- and part-time production and related workers on your pay roll who worked or received pay for any part of the pay period reported. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers even though these may be carried on your active rolls.

The term "production and related workers":

Includes working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in drilling, blasting, excavation, loading, crushing, processing, inspection, storage, handling, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e. g., power plant), and record-keeping and other services closely associated with the above production operations.

Excludes supervisory employees (above the working foreman level), their clerical staffs, and other groups of employees engaged in the following activities: Executive, purchasing, finance, accounting, legal, personnel, cafeterias, medical, professional, and technical activities, sales, sales-delivery, advertising, credit, collection, and in routine office function, supervision (above the working foreman level), and employees on your pay roll engaged in new construction and major additions or alterations to the plant who are utilized as a separate work force (force account construction workers).

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the production and related workers reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues, but after deductions for explosives or other supplies furnished by the company. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payment in kind, and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the production and related workers reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including production and related workers as well as those groups excluded from this category in the instructions for column 6. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of production and related workers performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than one week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of production and related workers affected.

U. S. GOVERNMENT PRINTING OFFICE 16—46872-5

FIGURE 6.6
FRONT

B. L. S. 871

Budget Bureau No. 44-R397.4. Approval expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

CRUDE PETROLEUM AND NATURAL GAS PRODUCTION—Including Natural Gasoline **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes	No. Estabs.	State	Ind.	Report No.	Ind. Grp.	

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

LOCATION OF OFFICES COVERED IN THIS REPORT (No. of estabs.)	(City)	(County)	(State)

I. PRINCIPAL PRODUCTS ....
(Please list in order of importance of annual sales value)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported — One Pay Period Only (preferably 1 week) Ending Nearest 15th of Month (both dates inclusive)		Do not use		Production and Related Workers: Number — Include all Production Workers Who Worked or Received Pay for Any Part of Period Reported	Do not use	Production and Related Workers: Pay Roll — Include Overtime and Pay for Sick Leave, Holidays, and Vacations Taken During Pay Period Reported (omit cents)	Production and Related Workers: Hours — Total Number of Hours Actually Worked Plus Hours Paid for Sick Leave, Holidays, and Vacations in Period Reported (omit fractions)	All Employees: Number — Include all Persons Who Worked or Received Pay for any Part of Period, Regardless of type of Work Performed (Include those reported in column 6)		Do not use	
	From—	Through—		L/P					Both Sexes	Women	Repl. Code	Int.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1947 Dec.			—			x						
1948 Jan.			—			x						
Feb.			—									
Mar.			—									
Apr.			—									
May.			—			x						
June.			—			x						
July.			—			x						
Aug.			—			x						
Sept.			—			x						
Oct.			—			x						
Nov.			—			x						
Dec.			—			x						

This form used for SSA industries 131 and 132.

III. DAYS WORKED. IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month	Number of Days Worked (including paid holidays) by Majority of Production Workers (nearest ½ day): During Week Ending Nearest 15th of Month	During Pay Period Shown in Cols. 2-3 if Longer Than a Week	Comments — Indicate Below the Main Factors Responsible for Changes in Employment, Pay Rolls, or Hours From Preceding Month, Such as: More or Less Overtime, Seasonal Expansion or Contraction, Partial Shut-Down for Repairs or Inventory-Taking, Lay-Offs Due to Contract Completion or Cancellation, Hirings Due to New Contracts Undertaken, Partial Shut-Down for Changes or Alterations of Facilities, Hiring After Reconversion of Facilities, Strikes, Holidays, Etc.	General Wage-Rate Changes (not Individual Changes for Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Please Check — Increase	Decrease	Approximate Number of Production Workers Affected
(14)	(15)	(16)	(17)	(18)	(19)	(20)
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May.						
June.						
July.						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (Date) (Position)

FIGURE 6.6
BACK

B. L. S. 871
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on production and related workers should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as production and related workers.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF PRODUCTION AND RELATED WORKERS.—Enter all full- and part-time production and related workers on your pay roll who worked or received pay for any part of the pay period reported. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers even though these may be carried on your active rolls.

The term "production and related workers":

Includes working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in flow-control, pumping, cleaning, processing, inspection, storage, handling, shipping, maintenance, repairs, janitorial, watchman services, product development, auxiliary production for plant's own use (e. g., power plant), clerical field force working on the producing property, and record-keeping and other services closely associated with the above production operations.

Excludes riggers and drillers, supervisory employees (above the working foreman level), their clerical staffs, and other groups of employees engaged in the following activities: Executive, purchasing, finance, accounting, legal, personnel, cafeterias, medical, professional and technical activities, sales, sales-delivery, advertising, credit, collection, and in routine office function, supervision (above the working foreman level), and employees on your pay roll engaged in new construction and *major* additions or alterations to the plant who are utilized as a separate work force (force account construction workers).

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the production and related workers reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues, but after deductions for explosives or other supplies furnished by the company. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payment in kind, and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the production and related workers reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including production and related workers as well as those groups excluded from this category in the instructions for column 6. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.'

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of production and related workers performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of production and related workers affected.

U. S. GOVERNMENT PRINTING OFFICE

FIGURE 6.7
FRONT

REPORT ON EMPLOYMENT AND PAY ROLL

PUBLIC UTILITY **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes: No. Estabs. | State | Ind. | Report No. | Ind. Grp.

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

LOCATION OF ESTABLISHMENTS COVERED IN THIS REPORT (No. of estabs.) (City) (County) (State)

I. TYPE OF PUBLIC UTILITY ....
(Such as electric light and power, street railway and motorbus, manufactured or natural gas, telephone, telegraph, etc. If more than one type of operation, please list in order of importance.)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month (1)	Period Reported: From— (2)	Period Reported: Through— (3)	Do Not Use (4)	Do Not Use L/P (5)	Nonsupervisory Employees and Working Supervisors: Number (6)	Do Not Use (7)	Pay Roll (8)	Hours (9)	All Employees: Both Sexes (10)	All Employees: Women (11)	Do Not Use: Empl. Code (12)	Do Not Use: Init. (13)
1947 Dec.			—			x						
1948 Jan.			—									
Feb.			—									
Mar.			—									
Apr.			—									
May			—									
June			—									
July			—									
Aug.			—									
Sept.			—			x						
Oct.			—			x						
Nov.			—			x						
Dec.			—			x						

This form used for the following SSA groups and industries

41
431
439
46 (independent companies only)
48
49

III. DAYS WORKED. IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month (14)	Number of Days Worked: During Week (15)	Number of Days Worked: During Pay Period (16)	Comments (17)	General Wage-Rate Changes: Increase (18)	General Wage-Rate Changes: Decrease (19)	Approximate Number of Employees Affected (20)
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May						
June						
July						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (over) (Position)

FIGURE 6.7
BACK

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on nonsupervisory employees and working supervisors should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as nonsupervisory employees and working supervisors.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter all full- and part-time nonsupervisory employees and working supervisors on your pay roll who worked or received pay for any part of the pay period. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers, even though these may be carried on your active rolls.

The term "nonsupervisory employees and working supervisors":

Includes (for electric light and power, manufactured or natural gas companies) employees (not above the working supervisory level) such as line and cablemen, maintenance and repair men, power dispatchers, electricians, meter readers, gas-producer men, laborers, general office clerks, office-machine operators, janitors and watchmen, and other employees whose services are closely associated with those of employees listed above.

(for street railway and motorbus companies) employees (not above the working supervisory level) such as motormen, conductors, drivers, dispatchers, switchmen, ticket agents, maintenance and repair men, laborers, general office clerks, office-machine operators, janitors and watchmen, and other employees whose services are closely associated with those of employees listed above.

(for telephone and telegraph companies) employees (not above the working supervisory level) such as linemen, maintenance and repair men, operators, general office clerks, office-machine operators, janitors and watchmen, and other employees whose services are closely associated with those of employees listed above.

Excludes proprietors, firm members, officers of corporations, and other principal executives such as managers, superintendents, and heads of departments whose work is above the working supervisory level.

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during periods reported, value of free rent, fuel, other payments in kind, and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including nonsupervisory workers and working supervisors as well as those groups excluded from this category in the instruction for column 6 except proprietors and firm members. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of nonsupervisory employees and working supervisors performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than one week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of nonsupervisory employees and working supervisors affected.

U. S. GOVERNMENT PRINTING OFFICE

FIGURE 6.8
FRONT

B. L. S. 1134

Budget Bureau No. 44-R280.4.
Approval expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

INSURANCE OR SECURITY BROKERAGE **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes

No. Estabs.	State	Ind.	Report No.	Ind. Grp.	

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

LOCATION OF OFFICES COVERED IN THIS REPORT
(No. of offices) (City) (County) (State)

I. INSURANCE OR BROKERAGE ....
(Please state kind of business, such as security, investment, or stock and bond brokerage or life, fire, marine, or casualty insurance. Also state whether home office, branch, or agency)

II. EMPLOYMENT, PAY ROLL, AND COMMISSIONS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: One Pay Period Only (preferably 1 week) Ending Nearest 15th of Month (both dates inclusive)		Do not use		Nonsupervisory Employees and Working Supervisors: Number — Include All Nonsupervisory Employees Who Worked or Received Pay for Any Part of Period Reported	Do not use	Pay Roll Excluding Commissions — Include Overtime and Pay for Sick Leave, Holidays, and Vacations Taken During Pay Period Reported (omit cents)	Do not use			Commissions: Amount of Commissions (omit cents)	Period Covered (both dates inclusive)		All Employees, Number — Include All Persons Who Worked or Received Pay for Any Part of Period Regardless of Type of Work Performed (include those reported in column 6)		Do not use	
	From—	Thru—		L/P					P. R.			From—	Thru—	Both sexes	Women	Expl. code	Init.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(8X)	(9X)	(8A)	(8B)	(8C)	(10)	(11)	(12)	(13)
1947 Dec.			—			x		x		x							
1948 Jan.			—			x		x		x							
Feb.			—			x		x		x							
Mar.			—														
Apr.			—														
May.			—														
June.			—			x		x		x							
July.			—			x		x		x							
Aug			—			x		x		x							
Sept.			—			x		x		x							
Oct			—			x		x		x							
Nov.			—			x		x		x							
Dec.			—			x		x		x							

This form used for SSA groups 61, 63 and 64.

III. DAYS WORKED. IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month	Number of Days Worked (including paid holidays) by Majority of Nonsupervisory Employees (nearest ½ day): During Week Ending Nearest 15th of Month	During Pay Period Shown in Cols. 2-3 if Longer Than a Week	Comments — Indicate Below the Main Factors Responsible for Changes in Employment or Pay Roll From the Preceding Month Such as Increase or Decrease in Volume of Business, More or Less Overtime, or Temporary Help, Holidays, Etc.	General Wage-Rate Changes (not Individual Changes for Length of Service, Merit, or Promotion) — If Any Since Last Month's Report, Please Check: Increase	Decrease	Approximate Number of Employees Affected
(14)	(15)	(16)	(17)	(18)	(19)	(20)
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May.						
June.						
July.						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (Date) (Position) 16—49676-8

FIGURE 6.8
BACK

B. L. S. 1134
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on nonsupervisory employees and working supervisors should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as nonsupervisory employees and working supervisors.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter all full- and part-time nonsupervisory employees and working supervisors on your pay roll who worked or received pay for any part of the pay period. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers, even though these may be carried on your active rolls.

The term "nonsupervisory employees and working supervisors":

Includes employees (not above the working supervisory level) such as insurance, brokerage and commission salesmen, investment and security advisors, insurance and security clerks, board boys, general office clerks, office-machine operators and other employees, whose services are closely associated with those of employees listed above.

Excludes proprietors, firm members, officers of corporation and other principal executives such as managers, and heads of departments whose work is above the working supervisory level.

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payments in kind, and bonuses unless earned and paid regularly each pay period.

Columns 8A, 8B, and 8C. COMMISSIONS OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter commissions paid to nonsupervisory employees and working supervisors reported in column 6. If commissions are paid regularly (monthly or oftener), enter in column 8A the amount of commissions earned during a period as close to the pay period reported as possible, and in columns 8B and 8C the first and last days of the period during which the commissions were earned. If commissions are not paid regularly, enter the total commissions paid since the last report, and the first and last days of the period during which they were earned.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including nonsupervisory workers and working supervisors as well as those groups excluded from this category in the instruction for column 6 except proprietors and firm members. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of nonsupervisory employees and working supervisors performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of nonsupervisory employees and working supervisors affected.

U. S. GOVERNMENT PRINTING OFFICE 16—49676-8

FIGURE 6.9
FRONT

B. L. S. 790

Budget Bureau No. [illegible]
Approval expires January [illegible]

REPORT ON EMPLOYMENT AND PAY ROLL

HOTELS **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes	No. Estabs.	State	Ind.	Report No.	Ind. Grp.	

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

LOCATION OF ESTABLISHMENTS COVERED IN THIS REPORT
(No. of estabs.) (City) (County) (State)

I. PLEASE STATE NAME AND TOTAL NUMBER OF GUEST ROOMS IN EACH HOTEL REPORTED

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: One Pay Period Only (preferably 1 week) Ending Nearest 15th of Month (both dates indicated)		Do Not Use		Nonsupervisory Employees and Working Supervisors: Number — Include All Nonsupervisory Employees Who Worked or Received Pay for Any Part of Period Reported	Do Not Use	Pay Roll — Include Overtime and Pay for Sick Leave, Holidays, and Vacations Taken During Pay Period Reported (omit cents)	Hours — Total Number of Hours Actually Worked Plus Hours Paid for Sick Leave, Holidays, and Vacations in Period Reported (omit fractions)	All Employees: Number — Include All Persons Who Worked or Received Pay for Any Part of Period, Regardless of Type of Work Performed (include those reported in column 6)		Do Not Use	
	From—	Through—		L/P					Both Sexes	Women	Empl. Code	Int.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1947 Dec.			—			x						
1948 Jan.			—			x						
Feb.			—									
Mar.			—									
Apr.			—									
May			—			x						
June			—			x						
July			—			x						
Aug.			—			x						
Sept.			—			x						
Oct.			—			x						
Nov.			—			x						
Dec.			—			x						

This form used for SSA industry 701.

III. DAYS WORKED. IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month	Number of Days Worked (including paid holidays) by Majority of Nonsupervisory Employees (nearest ½ day): During Week Ending Nearest 15th of Month	During Pay Period Shown in Cols. 2-3 if Longer Than a Week	Comments — Indicate Below the Main Factors Responsible for Changes in Employment, Pay Rolls, or Hours, From the Preceding Month, Such as: Increase or Decrease in Volume of Business, More or Less Overtime, Seasonal Expansion or Contraction, Weather, Floods, Strikes, Conventions, Holidays, Etc.	General Wage-Rate Changes (not Individual Changes for Length of Service, Merit, or Promotion) — If Any Since Last Month's Report, Please Check: Increase	Decrease	Approximate Number of Employees Affected
(14)	(15)	(16)	(17)	(18)	(19)	(20)
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May						
June						
July						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (over) (Position) 16—[illegible]

FIGURE 6.9
BACK

B. L. S. 790
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on nonsupervisory employees and working supervisors should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as nonsupervisory employees and working supervisors.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter all full- and part-time nonsupervisory employees and working supervisors on your pay roll who worked or received pay for any part of the pay period. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers, even though these may be carried on your active rolls.

The term "nonsupervisory employees and working supervisors":

Includes employees (not above the working supervisory level) such as receiving and room clerks, bellboys, doormen, valets, maids, housemen, chefs and cooks, kitchen workers, waiters and waitresses, bartenders, countermen, bus boys, dishwashers, office clerks, and other employees whose services are closely associated with those of employees listed above.

Excludes proprietors, firm members, officers of corporations, and other principal executives such as managers, superintendents, and heads of departments whose work is above the working supervisory level.

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during periods reported, value of free rent, fuel, other payments in kind, and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including nonsupervisory workers and working supervisors as well as those groups excluded from this category in the instruction for column 6 except proprietors and firm members. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of nonsupervisory employees and working supervisors performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of nonsupervisory employees and working supervisors affected.

U. S. GOVERNMENT PRINTING OFFICE 16—[illegible]

FIGURE 6.10
FRONT

B. L. S. 930

Budget Bureau No. 44-R284.4
Approval expires January 31, 1948

REPORT ON EMPLOYMENT AND PAY ROLL

LAUNDRIES, CLEANING AND DYEING **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes

No. Estabs.	Book	Sub.	Reports No.	Sub. Cov.

LOCATION OF ESTABLISHMENTS COVERED IN THIS REPORT

(No. of estabs.)	(City)	(County)	(State)

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

I. PRINCIPAL LINE OF BUSINESS .....
(If both laundry and cleaning and dyeing, state which predominates)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

YEAR AND MONTH	PERIOD REPORTED: One Pay Period Only Ending (or next) Nearest 15th of Month (Exceptions) From—	Through—	DO NOT USE		PRODUCTION AND RELATED WORKERS: NUMBER (Includes all Production Workers Who Worked or Received Pay for Any Part of Period Reported)	DO NOT USE	PAY ROLL (Includes Overtime and Pay for Sick Leave, Holidays, and Vacations in Period Reported (omit cents))	HOURS (Total Number of Hours Actually Worked This Period Plus Hours Paid for Sick Leave, Holidays, and Vacations in Period Reported (omit fractions))	ALL EMPLOYEES NUMBER (Includes all Persons Who Worked or Received Pay for any Part of Period, Regardless of Type of Work Performed (Include those reported in columns 6) Both Sexes	Women	DO NOT USE: Ind. Code	Est.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1947 Dec.						X						
1948 Jan.						X						
Feb.						X						
Mar.												
Apr.												
May												
June						X						
July						X						
Aug.						X						
Sept.						X						
Oct.						X						
Nov.						X						
Dec.						X						

This form used for SSA industries 721 and 722.

III. DAYS WORKED.

YEAR AND MONTH	NUMBER OF DAYS WORKED (Including and Limited to Majority of Production Workers Covered by Report) During Week Ending Nearest 15th of Month	During Pay Period Shorter in Col. 2-3? Longer Than a Week	IV. COMMENTS AND WAGE-RATE CHANGES. COMMENTS (Indicate Below the Main Factors Responsible for Changes in Employment, Pay Rolls, or Hours from Preceding Month, such as More or Less Overtime, General Expansion or Contraction, Partial Shut-down for Repairs, Lay-offs Due to Contract Completion or Cancellation, Strikes Due to New Contracts Undertaken, Holiday, Holidays, Etc.	GENERAL WAGE-RATE CHANGES (not Individual Changes for Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Please Check: Increase	Decrease	Approximate Number of Production Workers Affected
(14)	(15)	(16)	(17)	(18)	(19)	(20)
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May						
June						
July						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (Title) (Position) 15—48670-8

FIGURE 6.10
BACK

B. L. S. 930
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on production and related workers should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as production and related workers.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF PRODUCTION AND RELATED WORKERS.—Enter all full- and part-time production and related workers on your pay roll who worked or received pay for any part of the pay period reported. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers even though these may be carried on your active rolls.

The term "production and related workers":

Includes working foremen and all nonsupervisory workers (including leadmen and trainees) engaged at the plant in receiving and marking, processing, finishing, inspection, sorting, wrapping, shipping, maintenance, repair, janitorial, watchman services, and record-keeping and other services closely associated with the above production operations.

Excludes employees in retail outlets, supervisory employees (above the working foreman level), their clerical staffs, routemen, and other groups of employees engaged in the following activities: Executive, purchasing, finance, accounting, legal, personnel, cafeterias, medical, professional, and technical activities, sales, sales-delivery, advertising, credit, collection, and in installation and servicing of own products, routine office function, supervision (above the working foreman level), and employees on your pay roll engaged in new construction and *major* additions or alterations to the plant who are utilized as a separate work force (force account construction workers).

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the production and related workers reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues but after deductions for damaged work. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payment in kind, and bonuses unless earned and paid regularly each pay period.

Column 9. HOURS.—Enter hours actually worked during the pay period by the production and related workers reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including production and related workers as well as those groups excluded from this category in the instructions for column 6. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of production and related workers performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of production and related workers affected.

U. S. GOVERNMENT PRINTING OFFICE 15—48670-8

B. L. S. 756

FIGURE 6.11
FRONT

Budget Bureau No. 44-R388.4
Approval Expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

RETAIL TRADE — **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes

No. Estabs.	State	Ind.	Reason No.	Ind. Group

LOCATION OF ESTABLISHMENTS COVERED IN THIS REPORT

(No. of estabs.)	(City)	(County)	(State)

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

I. LINE OF RETAIL TRADE .....
(Such as department store, shoe store, millinery store, furniture store, etc. Please list in order of importance of sales volume)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

YEAR AND MONTH	PERIOD REPORTED: One Pay Period Only (preferably 1 week) Ending Nearest 15th of Month (See other instructions) From—	Through	Number of Establishments	DO NOT USE	NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS: NUMBER: Include All Nonsupervisory Employees and Working Supervisors Reported For Any Part of Pay Period Reported	DO NOT USE	PAY ROLL, EXCLUDING COMMISSIONS: Include Overtime Pay, Pay for Sick Leave, Holidays, and Vacations Taken During Pay Period Reported (total amount)	HOURS: Total Number of Hours Actually Worked During Pay Period Reported For Sick Leave, Holidays, and Vacations Taken During Pay Period Reported (total number)	DO NOT USE F. P.	DO NOT USE M.	ALL EMPLOYEES NUMBER: Include All Persons Who Worked or Received Pay for Any Part of Period Reported, Regardless of Type of Work Performed (See items reported in column 6) Both Sexes	Women	DO NOT USE Supp. Code	DO NOT USE Init.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9a)	(9b)	(10)	(11)	(12)	(13)
1947 Dec.														
1948 Jan.														
Feb.														
Mar.														
Apr.														
May														
June														
July														
Aug.														
Sept.														
Oct.					X				X					
Nov.					X				X					
Dec.					X				X					

This form used for the following SSA groups:
52 (Retail establishments)
53
54
55
56
57
58
59

II-A. COMMISSIONS.

YEAR AND MONTH	COMMISSIONS OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS: Amount of Commissions (total amount)	Period Covered (Add Other Instances) From—	Through	III. DAYS WORKED: NUMBER OF DAYS WORKED (Including paid holidays) By Majority of Nonsupervisory Employees (entered in Col.) During Work Week Ending Nearest 15th of Month	During Pay Period Shown in Cols. 2-3 If Longer Than 1 Week	IV. COMMENTS AND WAGE-RATE CHANGES. COMMENTS: Indicate Below the Main Factors Responsible for Changes in Employment, Pay Roll, or Hours From Previous Month, Such as: Inventory, Seasonal Expansion or Contraction, Labor Disputes Shortage, Repairs, Strikes, Holidays, etc.	GENERAL WAGE-RATE CHANGES (Not Individual Changes for Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Please Check: Increase	Decrease	Approximate No. of Employees Affected
(14)	(8a)	(8b)	(8c)	(15)	(16)	(17)	(18)	(19)	(20)
1947 Dec.									
1948 Jan.									
Feb.									
Mar.									
Apr.									
May									
June									
July									
Aug.									
Sept.									
Oct.									
Nov.									
Dec.									

(Signature of person making report) (Date) (Position) 16—43388-2

FIGURE 6.11
BACK

B. L. S. 756
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

INSTRUCTIONS

Data on nonsupervisory employees and working supervisors should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as nonsupervisory employees and working supervisors.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter all full- and part-time nonsupervisory employees and working supervisors on your pay roll who worked or received pay for any part of the pay period. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers, even though these may be carried on your active rolls.

The term "nonsupervisory employees and working supervisors":

Includes employees (not above the working supervisory level) such as salespersons, shipping and receiving clerks, stock clerks, general office clerks, office-machine operators, drivers, installation and repairmen, demonstrators, alteration hands, elevator operators, porters, janitors and watchmen, and other employees whose services are closely associated with those of employees listed above.

Excludes proprietors, firm members, officers of corporations, and other principal executives such as buyers, department heads, superintendents, and chain-store managers, whose work is above the working supervisory level.

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payments in kind, traveling and other expenses of salesmen, and bonuses unless earned and paid regularly each pay period.

Columns 8A, 8B, and 8C. COMMISSIONS OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter commissions paid to nonsupervisory employees and working supervisors reported in column 6. If commissions are paid regularly (monthly or oftener), enter in column 8A the amount of commissions earned during a period as close to the pay period reported as possible, and in columns 8B and 8C, the first and last days of the period during which the commissions were earned. If commissions are not paid regularly, enter the total commissions paid since the last report, and the first and last days of the period during which they were earned.

Column 9. HOURS.—Enter hours actually worked during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including nonsupervisory workers and working supervisors as well as those groups excluded from this category in the instruction for column 6 except proprietors and firm members. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of nonsupervisory employees and working supervisors performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than one week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of nonsupervisory employees and working supervisors affected.

U. S. GOVERNMENT PRINTING OFFICE 16—43388-2

B. L. S. 707

FIGURE 6.12
FRONT

Budget Bureau No. 44-R365.
Approval expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

WHOLESALE TRADE — **CONFIDENTIAL**

Please Return Promptly • *This Is Our Permanent Office Record* • *Handle Carefully*

B. L. S. Codes

No. Estab.	State	Ind.	Report No.	Ind. Grp.

LOCATION OF ESTABLISHMENTS COVERED IN THIS REPORT (No. of estabs.) (City) (County) (State)

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

I. LINE OF WHOLESALE TRADE .....
(Such as automotive, furniture, machinery, groceries, produce, etc. Please list in order of importance of sales volume)

TYPE OF OPERATION .....
(Independent wholesaler, bulk tank station, manufacturer's sales branch, agent or broker, packer and shipper, cooperative association, commission merchant, etc.)

II. EMPLOYMENT, PAY ROLL, AND HOURS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: One Pay Period Only (preferably one week) Ending Nearest 15th of Month (both dates inclusive) From (2)	Through (3)	Num-ber of Estab-lish-ments (4)	L/P (5)	DO NOT USE (6)	Nonsupervisory Employees and Working Supervisors: Number: Include All Nonsupervisory Employees Who Worked or Reported for Work or Received Pay for Any Part of Period Reported (6)	DO NOT USE (7)	Pay Roll, Excluding Commissions: Include Overtime and Premium Pay, Bonuses, and Vacation Taken During Pay Period Reported (paid entire) (8)	Hours: Total Number of Hours Actually Worked, Plus Hours Paid for Sick Leave, Holidays, and Vacations During Pay Period Reported (paid entire) (9)	DO NOT USE: F. H. (9a)	H. (9b)	All Employees: Number: Include All Persons Who Worked or Received Pay for Any Part of Period Reported (Include those reported in column 6): Both Sexes (10)	Women (11)	DO NOT USE: Estab. Code (12)	Ind. (13)
1947 Dec.							X								
1948 Jan.							X								
Feb.															
Mar.															
Apr.															
May															
June															
July															
Aug.							X								
Sept.							X								
Oct.							X								
Nov.							X								
Dec.							X								

This form used for the following SSA groups:

50
51
52 (Wholesale establishments)

II-A. COMMISSIONS.

Year and Month	Commissions of Nonsupervisory Employees and Working Supervisors: Amount of Commissions (paid entire) (14a)	Period Covered (both dates inclusive): From— (14b)	Through (14c)
1947 Dec.			
1948 Jan.			
Feb.			
Mar.			
Apr.			
May			
June			
July			
Aug.			
Sept.			
Oct.			
Nov.			
Dec.			

III. DAYS WORKED

Year and Month	Number of Days Worked (Including paid holidays) By Majority of Nonsupervisory Employees Reported for Week Ending Nearest 15th of Month (15a)	During Pay Period Reported (Col. 9) If Different From Col. 9 (15b)
1947 Dec.		
1948 Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		

IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month	Comments: Explain Below the Main Factors Responsible for Changes in Employment, Pay Roll, or Hours From Preceding Month, Such as: Inventory, Seasonal Expansion or Contraction, Merchandise Shortage, Repairs, Strikes, Holidays, etc. (17)	General Wage-Rate Changes Put Individual Changes for Length of Service, Merit, or Promotion): If Any Since Last Month's Report, Fewer Cents: Increase (18)	Decrease (19)	Approximate Number of Employees Affected (20)
1947 Dec.				
1948 Jan.				
Feb.				
Mar.				
Apr.				
May				
June				
July				
Aug.				
Sept.				
Oct.				
Nov.				
Dec.				

(Signature of person making report) (Firm) (Position) 16—40000-5

B. L. S. 707
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

FIGURE 6.12
BACK

INSTRUCTIONS

Data on nonsupervisory employees and working supervisors should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as nonsupervisory employees and working supervisors.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter all full- and part-time nonsupervisory employees and working supervisors on your pay roll who worked or received pay for any part of the pay period. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers, even though these may be carried on your active rolls.

The term "nonsupervisory employees and working supervisors":

Includes employees (not above the working supervisory level) such as salespersons, demonstrators, laborers, caretakers, general office clerks, office-machine operators, drivers, installation and repairmen, janitors and watchmen and other employees whose services are closely associated with those of the employees listed above.

Excludes proprietors, firm members, officers of corporations, and other principal executives such as managers, superintendents, and heads of departments whose work is above the working supervisory level.

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during periods reported, value of free rent, fuel, other payments in kind, traveling, and other expenses of salesmen, and bonuses unless earned and paid regularly each pay period.

Columns 8A, 8B, and 8C. COMMISSIONS OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter commissions paid to nonsupervisory employees and working supervisors reported in column 6. If commissions are paid regularly (monthly or oftener), enter in column 8A the amount of commissions earned during a period as close to the pay period reported as possible, and in columns 8B and 8C the first and last days of the period during which the commissions were earned. If commissions are not paid regularly, enter the total commissions paid since the last report, and the first and last days of the period during which they were earned.

Column 9. HOURS.—Enter hours actually worked during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Include hours paid for sick leave, holidays, and vacations taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including nonsupervisory workers and working supervisors as well as those groups excluded from this category in the instruction for column 6 except proprietors and firm members. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of nonsupervisory employees and working supervisors performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of nonsupervisory employees and working supervisors affected.

U. S. GOVERNMENT PRINTING OFFICE 25—40000-5

FIGURE 6.13
PAGE 1—FRONT
(PAGE 2, WHICH CONTINUES SECTIONS II, II-A, III AND IV, NOT SHOWN)

B. L. S. 1187

Budget Bureau No. 44-R208.1. Approval expires January 31, 1949.

WHOLESALE TRADE
RETAIL TRADE
INSURANCE

REPORT ON EMPLOYMENT AND PAY ROLL

Please Handle Carefully and Return Promptly

CONFIDENTIAL

Date .... (Year) (Month)

I. Line of Trade (*Check one*): Wholesale ☐ Retail ☐ Insurance ☐

A. If Wholesale—
1. Indicate line—such as automotive, furniture, machinery, groceries, produce, etc. ....
2. Indicate type of operation—such as manufacturer's sales branch, agent or broker, packer and shipper, cooperative association, commission merchant, etc. ....

B. If Retail—
Indicate line—such as department store, shoe store, millinery store, furniture store, etc. ....

C. If Insurance—
1. Indicate kind of insurance—such as life, fire, marine, or casualty ....
2. Indicate whether home office, branch, or agency ....

II. Employment, Pay Roll, and Hours. (Before entering data see Instructions on other side.)

Line No.	Location of establishments	Period reported: One pay period only (preferably 1 week) ending nearest 15th of month (Both dates inclusive)		Number of establishments	Nonsupervisory employees and working supervisors: Number. Include all nonsupervisory employees who worked or received pay for any part of period reported	Pay roll, excluding commissions. Include overtime and pay for sick leave, holidays, and vacations taken during pay period reported (Omit cents)	Hours. Total number of hours actually worked plus hours paid for sick leave, holidays, and vacations during pay period reported (Omit fractions)	All employees: Number. Include all persons who worked or received pay for any part of period regardless of type of work performed (Include those reported in column 5)	
	(1)	From (2)	Through (3)	(4)	(5)	(6)	(7)	Both sexes (8)	Women (9)
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									

This schedule used for firms with many establishments in Wholesale Trade, Retail Trade or Insurance and Security Brokerage (See BLS 787, 786 and 1134 for SSA code numbers).

II-A. Commissions. III. Days Worked IV. Comments and Wage-Rate Changes.

Line No.	Commissions of nonsupervisory employees and working supervisors: Amount of commissions (Omit cents)	Period covered (Both dates inclusive)		Number of days worked (including paid holidays) by majority of nonsupervisory employees (Nearest ½ day): During week ending nearest 15th of month	During pay period shown in cols. 2-3 if longer than a week	Comments: Indicate below the main factors responsible for changes in employment, pay roll, or hours from preceding month, such as: inventory, seasonal expansion or contraction, merchandise shortage, repairs, strikes, holidays, etc. Identify establishment by line number above	General wage-rate changes (not individual changes for length of service, merit, or promotion): If any since last month's report, please check		Approximate number of employees affected
	(6A)	From (6B)	Through (6C)	(10)	(11)	(12)	Increase (13)	Decrease (14)	(15)
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									

.... (Signature of person making report)   .... (Position)

16—46877-3

FIGURE 6.13
BACK

B. L. S. 1187
U. S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
Washington 25, D. C.

INSTRUCTIONS

Data on nonsupervisory employees and working supervisors should be supplied for the same classes of employees each month. All pay roll and hour figures reported should relate to employees defined as nonsupervisory employees and working supervisors.

Columns 2 and 3—PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 5—NUMBER OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter all full- and part-time nonsupervisory employees and working supervisors on your pay roll who worked or received pay for any part of the pay period. Include persons on paid sick leave, paid holidays, and paid vacation. Exclude pensioners, members of the armed forces, and unpaid family workers, even though these may be carried on your active rolls.

The term nonsupervisory employees and working supervisors:

Includes for Wholesale Trade.—Employees (not above the working supervisory level) such as salespersons, demonstrators, laborers, caretakers, general office clerks, office machine operators, drivers, installation and repairmen, janitors and watchmen and other employees whose services are closely associated with those of the employees listed above.

Includes for Retail Trade.—Employees (not above the working supervisory level) such as salespersons, shipping and receiving clerks, stock clerks, general office clerks, office machine operators, drivers, installation and repairmen, demonstrators, alteration hands, elevator operators, porters, janitors and watchmen, and other employees whose services are closely associated with those of employees listed above.

Includes for Insurance.—Employees (not above the working supervisory level) such as insurance, brokerage and commission salesmen, investment and security advisors, insurance and security clerks, board boys, general office clerks, office machine operators and other employees whose services are closely associated with those of employees listed above.

Excludes.—Proprietors, firm members, officers of corporations, and other principal executives such as buyers, department heads, superintendents, and chain store managers, whose work is above the working supervisory level.

Column 6—PAY ROLL.—Enter amount of pay earned during the pay period by the nonsupervisory employees and working supervisors reported in Column 5. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during periods reported, value of free rent, fuel, other payments in kind, traveling and other expenses of salesmen, and bonuses unless earned and paid regularly each pay period.

Columns 6A, 6B, and 6C—COMMISSIONS OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter commissions paid to nonsupervisory employees and working supervisors reported in Column 5. If commissions are paid regularly (monthly or oftener), enter in Column 6A the amount of commissions earned during a period as close to the pay period reported as possible, and in Columns 6B and 6C the first and last days of the period during which the commissions were earned. If commissions are not paid regularly, enter the total commissions paid since the last report, and the first and last days of the period during which they were earned.

Column 7—HOURS.—Enter hours actually worked during the pay period by the nonsupervisory employees and working supervisors reported in Column 5. Include hours paid for sick leave, holidays, and vacations if vacations are taken during pay period reported. If employees elect to work during vacation period, report only actual hours worked by such employees. Do not convert overtime hours to straight-time equivalent hours.

Column 8—ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including nonsupervisory workers and working supervisors as well as those groups excluded from this category in the instruction for Column 5 except proprietors and firm members. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this Column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in Column 12.

Column 9—ALL EMPLOYEES—WOMEN.—Report number of women employees included in Column 8.

Columns 10 and 11—NUMBER OF DAYS WORKED.—Enter in Column 10 the number of days (including paid holidays) on which the majority of nonsupervisory employees and working supervisors performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than one week, enter in Column 11 the number of days worked or paid for during the pay period reported.

Column 12—COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 13, 14, and 15—GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in Column 15 the number of nonsupervisory employees and working supervisors affected.

16—46877-3

B. L. S. 1767

FIGURE 6.14
FRONT

Budget Bureau No. 44-R034.2.
Approval expires January 31, 1949.

REPORT ON EMPLOYMENT AND PAY ROLL

CONFIDENTIAL

Please Return Promptly • ***This Is Our Permanent Office Record*** • ***Handle Carefully***

B. L. S. Codes

No. Estabs.	State	Ind.	Report No.	Ind. Grp.	

(ABOVE IS MAILING ADDRESS—CHANGE IF INCORRECT—INCLUDE POSTAL ZONE NUMBER)

LOCATION OF ESTABLISHMENTS COVERED IN THIS REPORT
(No. of estabs.) (City) (County) (State)

I. LINE OF BUSINESS ....
(Describe in detail in order of importance of receipts, actual or estimated, during 1947 calendar year)

II. EMPLOYMENT, PAY ROLL, AND COMMISSIONS. (Before entering data see Instructions on other side.)

Year and Month	Period Reported: One Pay Period Only (preferably 1 week) Ending Nearest 15th of Month (both dates inclusive)		Number of Establishments	DO NOT USE	Nonsupervisory Employees and Working Supervisors: Number — Include all Nonsupervisory Employees Who Worked or Received Pay for Any Part of Period Reported	DO NOT USE	Pay Roll, Excluding Commissions — Include Overtime and Pay for Sick Leave, Holidays, and Vacations Taken During Pay Period Reported (omit cents)	DO NOT USE			Commissions: Amount of Commissions (omit cents)	Commissions: Period Covered (both dates inclusive)		All Employees: Number — Include all Persons Who Worked or Received Pay for Any Part of Period, Regardless of Type of Work Performed (include those reported in column 6)		DO NOT USE	
	From—	Thru—		L/P					P.R.			From—	Thru—	Both sexes	Women	Expl. Code	Init.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(9a)	(9b)	(8A)	(8B)	(8C)	(10)	(11)	(12)	(13)
1947 Dec.						x		x		x							
1948 Jan.																	
Feb.																	
Mar.																	
Apr.																	
May																	
June																	
July																	
Aug.																	
Sept.																	
Oct.						x		x		x							
Nov.						x		x		x							
Dec.						x		x		x							

This form used for the following SSA groups and industries:

07	433	65	723	73	80
08	434	66	724	74	81
09	44	67	725	75	82
133	45	702	726	76	83
42	60	703	727	78	86
432	62	704	729	79	99

III. DAYS WORKED. IV. COMMENTS AND WAGE-RATE CHANGES.

Year and Month	Number of Days Worked (including paid holidays) By Majority of Nonsupervisory Employees (nearest ½ day): During Week Ending Nearest 15th of Month	During Pay Period Shown in Cols. 2-3 if Longer Than a Week	COMMENTS — Indicate Below the Main Factors Responsible for Changes in Employment or Pay Roll From the Preceding Month, Such as: Increase or Decrease in Volume of Business, More or Less Overtime, Seasonal Expansion or Contraction, Weather, Floods, Strikes, Holidays, Etc.	General Wage-Rate Changes (not Individual Changes for Length of Service, Merit or Promotion) — If Any Since Last Month's Report, Please Check: Increase	Decrease	Approximate Number of Employees Affected
(14)	(15)	(16)	(17)	(18)	(19)	(20)
1947 Dec.						
1948 Jan.						
Feb.						
Mar.						
Apr.						
May						
June						
July						
Aug.						
Sept.						
Oct.						
Nov.						
Dec.						

(Signature of person making report) (Date) (Position) 16—40471-8

B. L. S. 1767
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25, D. C.

FIGURE 6.14
BACK

INSTRUCTIONS

Data on nonsupervisory employees and working supervisors should be supplied for the same classes of employees each month. All pay-roll and hour figures reported should relate to employees defined as nonsupervisory employees and working supervisors.

Columns 2 and 3. PERIOD REPORTED.—Give the first and last day of the pay period reported.

Column 6. NUMBER OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter all full- and part-time nonsupervisory employees and working supervisors on your pay roll who worked or received pay for any part of the pay period. Include persons on paid sick leave, paid holidays, and paid vacations. Exclude pensioners, members of the armed forces, and unpaid family workers, even though these may be carried on your active rolls.

The term "nonsupervisory employees and working supervisors":

Includes employees (not above the working supervisory level) such as office and clerical employees, repairmen, salespersons, operators, drivers, ticket agents, bank tellers, ushers, attendants, mechanical and service employees, janitorial and watchmen and other employees whose services are closely associated with those of the employees listed above.

Excludes proprietors, firm members, officers of corporations and other principal executives such as managers, superintendents, and heads of departments whose work is above the working supervisory level.

Column 8. PAY ROLL.—Enter amount of pay earned during the pay period by the nonsupervisory employees and working supervisors reported in column 6. Pay rolls should be reported before deductions for old-age and unemployment insurance, group insurance, withholding tax, bonds, and union dues but after deductions for supplies furnished by the company. Include pay for sick leave, holidays, and vacations taken during pay period reported, but exclude cash payments made for vacations not taken. Exclude retroactive pay not earned during period reported, value of free rent, fuel, other payments in kind, and bonuses unless earned and paid regularly each pay period.

Columns 8A, 8B, and 8C. COMMISSIONS OF NONSUPERVISORY EMPLOYEES AND WORKING SUPERVISORS.—Enter commissions paid to nonsupervisory employees and working supervisors reported in column 6. If commissions are paid regularly (monthly or oftener), enter in column 8A the amount of commissions earned during a period as close to the pay period reported as possible, and in columns 8B and 8C the first and last days of the period during which the commissions were earned. If commissions are not paid regularly, enter the total commissions paid since the last report, and the first and last days of the period during which they were earned.

Column 10. ALL EMPLOYEES—BOTH SEXES.—Enter the total number of employees in this establishment, including nonsupervisory workers and working supervisors as well as those groups excluded from this category in the instruction for column 6 except proprietors and firm members. If a quarterly contribution report for this establishment is made to your State unemployment compensation agency, the employment figures in this column should be identical with those which will be reported on the unemployment compensation report. If different, please state differences in column 17.

Column 11. ALL EMPLOYEES—WOMEN.—Report number of women employees included in column 10.

Columns 15 and 16. NUMBER OF DAYS WORKED.—Enter in column 15 the number of days (including paid holidays) on which the majority of nonsupervisory employees and working supervisors performed work or for which they received pay, during week ending nearest 15th. When the pay period reported is longer than 1 week, enter in column 16 the number of days worked or paid for during the pay period reported.

Column 17. COMMENTS.—Report the chief reasons for changes in employment, pay rolls, and hours. These comments are used in the economic interpretation of the data compiled from these reports.

Columns 18, 19, and 20. GENERAL WAGE RATE CHANGES.—Report any general increase or decrease in wage rates which occurred in the establishment reported since last month's report. Enter in column 20 the number of nonsupervisory employees and working supervisors affected.

U. S. GOVERNMENT PRINTING OFFICE 16—40471-8

FIGURE 6.15

B.L.S. 1916

EMPLOYMENT AND PAY-ROLL REPORT
SPECIAL TELEGRAPH FORM

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON 25, D. C.
In Cooperation With
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

Budget Bureau No. 44-R268.1
Approval expires 1-31-49

B.L.S. Codes

No. Est.	State	Ind.	Est. No.	Ind. Grp.	Area	C	L of P

(Above is mailing address—change if incorrect)

A separate report is required for each department within each Division as follows:
(a) Traffic (See Note 1) (b) Plant (See Note 1) (c) Commercial (See Note 1)
(d) All other departments (Include all employees not included in any of the first three departments, except headquarters personnel for which no report is required. See Note 1.)

1. Report for: Division _____ Department _____

2. EMPLOYMENT, PAY ROLL, AND HOURS.

Year and month	One pay period only (preferably 1 week) ending nearest 15th of month: From—	Through—	Number of employees working any part of period reported (See notes 1 and 2): Total both sexes	Total females	Amount of pay roll including overtime, sick leave, holiday, and vacation pay (See note 3) (omit cents)	Number of employee-hours including overtime hours actually worked, hours paid for sick leave, holidays, and vacations (See note 4) (omit fractions)	DO NOT USE: Expl. code
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1947 December							
1948 January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							

This form used for reports from the Western Union Telegraph Company (SSA industry 462).

Note 1.—Include all land line employees except those compensated entirely on a commission basis. Include also general and divisional headquarters personnel, trainees in school, and messengers.

Note 2.—Include persons on paid vacation, paid sick leave, and holiday pay during pay period covered, but exclude members of the armed forces, pensioners, and others carried on rolls in a pay or nonpay status but who are not working during period.

Note 3.—Include employee contributions for old-age benefits, unemployment insurance, group insurance, withholding tax, bonds, union dues etc., but do not include estimated value of free rent, fuel, and other payments in kind. Include also pay for holidays, sick leave, and vacations but only that portion of vacation pay which applies to period covered. EXCLUDE payments to members of the armed forces, pensioners, and others unless payment is made for work performed during the period and "bonus" payments, unless earned and paid more or less regularly each pay period. If cash payments are made in lieu of vacation NOT TAKEN, do not include such payments in pay rolls nor equivalent in man-hours.

Note 4.—Enter the sum of the hours actually worked by the employees covered by this section including hours paid for vacations, sick leave and holidays during the pay-roll period reported. Do not convert overtime hours to straight-time hours.

3. COMMENTS ON WAGE-RATE CHANGES OR OTHER INCREASES OR DECREASES.—If there has been any marked increase or decrease in the employment, pay-roll, or employee-hour figures, as compared with the preceding month's report, please state reasons below. Also, please report changes in RATES of wages since 15th of last month, giving date of change, percentage of increase (+) or decrease (–), and total number of employees affected. The wage-rate changes desired are general changes and not individual changes for length of service, merit, or promotion.

1948 Jan.		July	
Feb.		Aug.	
Mar.		Sept.	
Apr.		Oct.	
May		Nov.	
June		Dec.	

(Signature of person making report) (Position)

THIS IS OUR PERMANENT OFFICE RECORD. PLEASE HANDLE CAREFULLY. PLEASE RETURN THIS COPY BEFORE THE 20TH OF THE MONTH.

FIGURE 6.16

B.L.S. 1916
FEDERAL COMMUNICATIONS COMMISSION
and
U. S. BUREAU OF LABOR STATISTICS
Washington 25, D. C.

COOPERATIVE REPORT
EMPLOYMENT, PAY ROLL AND HOURS OF WORK
SPECIAL TELEPHONE FORM

Budget Bureau No. 44-R268.1
Approval expires 1-31-49

B.L.S. Codes

No. Est.	State	Ind.	Est. No.	Ind. Grp.	Area	C	L of P

A separate report is required for each part of each company as follows:
(a) Total operations
(b) Traffic department
(c) Plant department

(Above is mailing address - change if incorrect)

1. REPORT FOR: (a) (b) (c) ABOVE _____ GEOGRAPHIC COVERAGE OF THIS REPORT _____

2. EMPLOYMENT, PAY ROLL, AND HOURS. (E.g. "United States," "Muskegon Co.," "City of New York," etc.)

Year and month	PERIOD REPORTED: One pay period only (preferably 1 week) ending nearest 15th of month. Both dates inclusive: From—	Through—	EMPLOYEES COVERED BY THE FAIR LABOR STANDARDS ACT (See instruction 1): NUMBER (See instruction 2) Include all full- and part-time covered employees who worked or received pay for any part of period reported: Both sexes	Women	PAY ROLL (See instruction 3) Include overtime and pay for sick leave, holidays and vacations taken during pay period reported (omit cents)	HOURS (See instruction 4) Total number of hours actually worked plus estimated paid sick leave, paid vacation, and paid holiday hours in pay period reported (omit fractions)	ALL EMPLOYEES (See instruction 5) Include all persons who worked or received pay for any part of period regardless of type of work performed (include those reported in columns 4 & 5): Both sexes	Women	DO NOT USE: Expl. code
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1947 Dec.									
1948 Jan.									
Feb.									
Mar.									
Apr.									
May									
June									
July									
Aug.									
Sept.									
Oct.									
Nov.									
Dec.									

This form used for reports from the American Telephone and Telegraph Company and its telephone subsidiaries (Bell System) (SSA industry 461.)

Instruction 1.—Include only those employees covered by the Fair Labor Standards Act, Pub. No. 718 as amended, or by a ruling by the Administrator in official orders.

Instruction 2.—Include persons on paid vacation, paid holiday, and paid sick leave during pay period covered, but exclude members of the armed forces, pensioners and others carried on rolls in a pay or nonpay status but who are not working during period.

Instruction 3.—Include employee contributions for old-age benefits, unemployment insurance, group insurance, withholding tax, bonds, union dues etc., but do not include estimated value of payments in kind. Include also pay for sick leave, holidays and vacation pay, but only that portion of vacation pay which applies to period covered. EXCLUDE payments to members of the armed forces, pensioners, and others unless payment is made for work performed during the period and "bonus" payments, unless earned and paid more or less regularly each pay period. If cash payments are made in lieu of vacation NOT TAKEN, do not include such payments in pay rolls nor equivalent in man-hours.

Instruction 4.—Enter the sum of the hours actually worked by the "covered" employees including estimated paid-vacation, paid sick leave, and paid-holiday hours during the pay-roll period reported. If employees elect to work during vacation period, include only actual hours earned by such employees. Do not convert overtime hours to straight-time hours. (See last sentence of instruction 2.)

Instruction 5.—Report all employees, including executives and other employees both covered and not covered by the Fair Labor Standards Act.

3. COMMENTS ON WAGE-RATE CHANGES OR OTHER INCREASES OR DECREASES.—If there has been any marked increase or decrease in the employment, pay-roll, or employee-hour figures, as compared with the preceding month's report, please state reasons below. Also, please report changes in RATES of wages since 15th of last month, giving date of change, percentage of increase (+), or decrease (–), and total number of employees affected. The wage-rate changes desired are general changes and not individual changes for length of service, merit, or promotion.

MONTH	COMMENT	MONTH	COMMENT

(Signature of person making report) (Position)

This is our permanent office record. Please handle carefully. Please return this copy before the 20th of the month.

To:

FIGURE 6.17
FRONT

B. L. S. 801
(Rev. 9-15-47)

U. S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
Washington 25, D. C.

Cooperative Report

VOLUME OF EMPLOYMENT
PRIVATE AND PUBLIC CONSTRUCTION

Strictly confidential

Budget Bureau No. 44-R046.5.
Approval expires 12-31-1948.

TYPE OF CONTRACTOR

(State whether general building, highway, heavy, plumbing, electrical, carpentering, etc.)

Report for ONE PAY-ROLL WEEK ending nearest

(If above mailing address is incorrect or zone number omitted, please indicate change).

Please furnish the information requested below for the one week ENDING NEAREST THE 15TH OF THE CURRENT MONTH and return one form in the accompanying envelope which requires no postage. Kindly mail the report so that it may be received before the 25th of the month.

PART 1.—EMPLOYMENT, PAY ROLLS, and MAN-HOURS AT SITE OF CONSTRUCTION. Report totals for all employees, both full and part time, who worked during the week. Use lines 1 to 7 on this page for employment at site of construction. Report off-site employment on line 8. Exclude proprietors. (If you did not have site employees during the week report "0".)

	(1) Report Separately for Private and Public Work for Each State in Which You Operated — State	(2) State Whether Private or Public Work (Federal, Federal-Aided, State, County, or Local Government)	(3) Pay Period Covered (Preferably the Week Ending Nearest the 15th of the Month) — From—	(3) — To—	(4) Number of Employees	(5) Amount Earned in Wages During the Week (Do Not Deduct Old-Age Benefits, Income Taxes, Bond Purchases, Union Dues, Etc.) Omit cents	(6) Total Man-Hours Actually Worked During the Week Omit fractions
1							
2							
3							
4							
5							
6							
7							

This form used for SSA groups 15, 16 and 17.

(If additional space is required for reporting on-site employment, please use reverse side of this form)

8	PART 2.—EMPLOYMENT IN CENTRAL OFFICE, SHOP, YARD, ETC. (If you did not have off-site employees during the week report "0".)					
9	PART 3.—TOTAL EMPLOYMENT (Enter the total number of different persons actively employed and carried on all of your pay rolls during the week. Do not simply add the number listed by pay rolls as this would overstate employment if some were carried on more than one pay roll during the week). Exclude proprietors. (If you did not have any employees during the week report "0".)					

Please comment on any significant changes in number of employees, pay rolls, and man-hours .....

DATE ..... SIGNED .....

KEEP ONE COPY FOR YOUR FILES POSITION .....

U. S. GOVERNMENT PRINTING OFFICE 16—47806-3

FIGURE 6.17
BACK

EMPLOYMENT, PAY ROLLS, and MAN-HOURS. Report totals for all employees, both full and part time, who work during the week. Exclude proprietors.

	(1) Report Separately for Private and Public Work for Each State in Which You Operated — State	(2) State Whether Private or Public Work (Federal, Federal-Aided, State, County, or Local Government)	(3) Pay Period Covered (Preferably the Week Ending Nearest the 15th of the Month) — From—	(3) — To—	(4) Number of Employees	(5) Amount Earned in Wages During the Week (Do Not Deduct Old-Age Benefits, Income Taxes, Bond Purchases, Union Dues, Etc.) Omit cents	(6) Total Man-Hours Actually Worked During the Week Omit fractions
10							
11							
12							
13							
14							
15							
16							
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35							

U. S. GOVERNMENT PRINTING OFFICE 16—47806-3

FIGURE 6.1B
FRONT

B. L. S. 201-1
(Rev. 5-15-47)

Budget Bureau No. 44-R043.1
Approval expires 12-31-1948.

U. S. DEPARTMENT OF LABOR
Bureau of Labor Statistics
Washington 25, D. C.

VOLUME OF EMPLOYMENT
PRIVATE AND PUBLIC CONSTRUCTION

Strictly confidential

TYPE OF CONTRACTOR

.....
(State whether general building, highway, heavy, plumbing, electrical, carpentering, etc.)

Report for ONE PAY-ROLL WEEK ending nearest

.....
(If above mailing address is incorrect or zone number omitted, please indicate change)

Please furnish the information requested below for the one week ENDING NEAREST THE 15TH OF THE CURRENT MONTH and return one form in the accompanying envelope which requires no postage. Kindly mail the report so that it may be received before the 25th of the month.

PART 1.—EMPLOYMENT, PAY ROLLS, and MAN-HOURS AT SITE OF CONSTRUCTION. Report totals for all employees, both full and part time, who worked during the week. Use lines 1 to 12 on this page for employment at site of construction. Report off-site employment on line 13. Exclude proprietors. (If you did not have site employees during the week report "0".)

	(1) Report Separately for Private and Public Work for Each State in Which You Operated — State	(2) State Whether Private or Public Work (Federal, Federal-Aided, State, County, or Local Government)	(3) Pay Period Covered (Preferably the Week Ending Nearest the 15th of the Month) — From—	(3) — To—	(4) Number of Employees	(5) Amount Earned in Wages During the Week (Do Not Deduct Old-Age Benefits, Income Taxes, Bond Purchases, Union Dues, Etc.) — Omit cents	(6) Total Man-Hours Actually Worked During the Week — Omit fractions
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

This form used for large firms with many construction sites in SSA groups 15, 16 and 17.

(If additional space is required for reporting on-site employment, please use reverse side of this form)

13	PART 2.—EMPLOYMENT IN CENTRAL OFFICE, SHOP, YARD, ETC. (If you did not have off-site employees during the week report "0".)					
14	PART 3.—TOTAL EMPLOYMENT (Enter the total number of different persons actively employed and carried on all of your pay rolls during the week. Do not simply add the number listed by pay rolls as this would overstate employment if some were carried on more than one pay roll during the week). Exclude proprietors. (If you did not have any employees during the week report "0".)					

Please comment on any significant changes in number of employees, pay rolls, and man-hours .....

DATE ..... SIGNED .....

KEEP ONE COPY FOR YOUR FILES POSITION .....

FIGURE 6.1B
BACK

EMPLOYMENT, PAY ROLLS, and MAN-HOURS. Report totals for all employees, both full and part time, who work during the week. Exclude proprietors.

	(1) Report Separately for Private and Public Work for Each State in Which You Operated — State	(2) State Whether Private or Public Work (Federal, Federal-Aided, State, County, or Local Government)	(3) Pay Period Covered (Preferably the Week Ending Nearest the 15th of the Month) — From—	(3) — To—	(4) Number of Employees	(5) Amount Earned in Wages During the Week (Do Not Deduct Old-Age Benefits, Income Taxes, Bond Purchases, Union Dues, Etc.) — Omit cents	(6) Total Man-Hours Actually Worked During the Week — Omit fractions
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
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31							
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41							
42							
43							
44							
45							
46							

U. S. GOVERNMENT PRINTING OFFICE : 1947—O-781468

FIGURE 6.19

LIST OF STATE CODE NUMBERS USED BY THE BUREAU OF LABOR STATISTICS

1. Alabama.
2. Arkansas.
3. Arizona.
4. California.
5. Colorado.
6. Connecticut.
7. Delaware.
8. District of Columbia.
9. Florida.
10. Georgia.
11. Idaho.
12. Illinois.
13. Indiana.
14. Iowa.
15. Kansas.
16. Kentucky.
17. Louisiana.
18. Maine.
19. Maryland.
20. Massachusetts.
21. Michigan.
22. Minnesota.
23. Mississippi.
24. Missouri.
25. Montana.
26. Nebraska.
27. New Hampshire.
28. New Jersey.
29. New Mexico.
30. Nevada.
31. New York.
32. North Carolina.
33. North Dakota.
35. Ohio.
36. Oklahoma.
37. Oregon.
39. Pennsylvania.
40. Rhode Island.
41. South Carolina.
42. South Dakota.
43. Tennessee.
44. Texas.
45. Utah.
46. Vermont.
47. Virginia.
48. Washington.
49. West Virginia.
50. Wisconsin.
51. Wyoming.

FIGURE 6.20

COMMENT CODES FOR ANALYSIS PURPOSES

[To be used for firms' comments only]

1. Absenteeism—excessive.
2. Closed.
3. Commissions—increased.
4. Commissions—decreased.
5. Contracts—hirings due to new contracts.
6. Contracts—lay-offs due to contract cancellation.
7. Contracts—lay-offs due to contract completion.
8. Convention or exposition.
9. Convention or exposition ended.
10. Departments, units, plants, etc.—increase in number operating.
11. Departments, units, plants, etc.—decrease in number operating.
12. Female—increased number of female workers.
13. Female—decreased number of female workers.
14. Fire, flood, or storm—resumption of operations after fire, flood, or storm.
15. Fire, flood, or storm.
16. Holiday work—premium pay for holiday work.
17. Holiday—half-holiday shut-down.
18. Holiday—shut-down.
19. Illness—excessive.
20. Labor force—change in composition (increase or decrease in number of part-time workers, except for seasonal).
21. Orders, special (pick-up in business, etc.).
22. Orders, fewer (less business, etc.).
23. Overtime work.
24. Overtime—less.
25. Piecework.
26. Premium payments (bonuses, incentive pay, etc.).
27. Reconversion—hiring after reconversion of facilities.
28. Reconversion—shut-down or partial shut-down.
29. Salaried employees—increase in hours due to more working days for salaried employees.
30. Salaried employees—decrease in hours due to fewer working days for salaried employees.
31. Sale—beginning of special sale.
32. Sale—end of special sale.
33. Seasonal—expansion (including pre-holiday and part-time help).
34. Seasonal—decrease.
35. Shifts—extra shift.
36. Shifts—decrease in number of shifts.
37. Shortage—labor.
38. Shortage—material.
39. Shut-down—partial shut-down for inventory taking.
40. Shut-down—partial shut-down for repairs.
41. Shut-down temporarily—miscellaneous.
42. Soldiers or sailors—part-time (increase in number).
43. Soldiers or sailors—part-time (decrease in number).
44. Strike—resumption of operations after settlement of strike or labor troubles.
45. Strike.
46. Vacations with pay.
47. Vacations without pay.
48. Wage and hour act—change due to wage and hour act.
49. Wage rate change reported by company but not shown in the figures.
50. Wage rate increase.
51. Wage rate decrease.
52. Workweek—lengthened.
53. Workweek—shortened.

[Comment codes affecting office mechanics only]

54. Change in class of employees reported.
55. Code—BLS code changed.
56. Code—no code applicable (see bill card for explanation).
57. Comparison—new comparison (preceding month repunched with comparable data).
58. Fluctuation in pay roll due to variation in number of days operating during period reported.
59. New firm—first month of operation.
60. Newly reporting firm—first available data for newly reporting firm.
61. Newly reporting firm—first month used for newly reporting firm.
62. Preceding month—no data available.
63. Repunch.
64. Verification—data used pending verification by firm.

807631—49——8

FIGURE 6.21

B. L. S. 940 (Rev.)
(10–7–44)

U. S. DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS

MACHINE TABULATION DIVISION

BLOCK CONTROL

Job number.
Project title.
Block number.
First and last sheet number.
Number of schedules or record cards.
Control count.
Number of cards punched.
Number of cards gang punched.
Date transmitted.
Date issued Punch Section.
Date of retransmittal.
Date received.

FIGURE 6.22

U. S. Department of Labor
BUREAU OF LABOR STATISTICS
BLS–ES–16

SIGNIFICANT COMMENTS

State_____ Month_____
(Use separate sheet for each major industry)
Industry_____

BLS code number	Employment		Comment (also give pay roll and hours for both months, if significant)
	Preceding month	Current month	

FIGURE 6.23

SCHEDULE SUBSTITUTE FORM

Direct: Desk number _____
State _____
Date _____

U. S. DEPT. OF LABOR—BLS ES-4
Employment Statistics Division
(Rev. 11-47)

No. Estab. (1)	State (2)	Industry (3)	Report No. (4)	I G (5)	(6)

To be used only for transmitting to Machine Tabulation current reports before the final closing when it is desired to free the schedule for immediate return to the firm. For Contract States, this form should be used only when the report can be received in Washington in time for the current tabulation (closing date 26th of the following month). Complete data must be entered in all boxes, 1 through 16. For boxes 7 through 16 data for both months must be shown. On schedule, green check month in question in left- and right-hand margins to denote punching from schedule substitute form. Data reported as "none" must be entered as zero; if not reported, enter an X. If preceding month data are not available, use an explanatory code with current month data. If there has been a correction on preceding month data, show the original figures and supply a correction form. *Pay and hours need not be reduced to a one-week basis, but L. P. codes applicable to the data as entered on this form must be inserted in boxes in column 9.*

	Mo. (7)	Yr. (8)	Production workers or nonsupervisory employees: L P code (9)	Number: Total both sexes (10)	Number: Women (11)	Pay roll (12)	Hours (13)	All employees: Number: Total both sexes (14)	All employees: Number: Women (15)	Expl. code (16)
Prec.										
Cur.										

REMARKS:

COLOR OF FORM: YELLOW

FIGURE 6.24

LATE REPORT FORM

State _____
Date transmitted _____

U. S. DEPT. OF LABOR - BLS-ES-3
Employment Statistics Division
(Rev. 11-47)

No. Estab. (1)	State (2)	Industry (3)	Report No. (4)	I G (5)	(6)

To be mailed directly to the Machine Tabulation Division when transmitting data which will be received too late for inclusion in the current tabulation (closing date 26th of the following month). Complete data must be entered in boxes 1 through 16, including hours if reported. On schedule, green check month in question in left-hand margin to denote punching from other source. Data reported as "none" must be entered as zero; if not reported, enter an X. Data for both months must be shown in boxes 7 through 16, but a separate late report must be sent to Machine Tabulation for each month for which data are to be punched. If preceding month data are not available, use an explanatory code with current month data. If there has been a correction on preceding month data, show the original figures, and supply a correction form. All pay and hours must be reduced to a one-week basis.

	Mo. (7)	Yr. (8)	Production workers or nonsupervisory employees: L P code (9)	Number: Total both sexes (10)	Number: Women (11)	Pay roll (1 week) (12)	Hours (1 week) (13)	All Employees: Number: Total both sexes (14)	All Employees: Number: Women (15)	Expl. code (16)
Prec.			X							
Cur.			X							

Remarks: _____

ADJUSTMENT RECORD - For BLS Use Only

	Posting card (17)	Industry sample: Total (18)	Industry sample: Breakdown (19)	Man-hour sample: Total (20)	Man-hour sample: Breakdown (21)	State (22)
H.A.						
Rev.						

COLOR OF FORM: GREEN

FIGURE 6.25

U. S. DEPT OF LABOR – BLS ES – 2
Employment Statistics Division
(Rev. 11-47)

CORRECTION FORM

Desk _____
State _____
Date _____

	Month (1)	Yr. (2)	No. Estab. (3)	State (4)	Industry (5)	Report No. (6)	I G (7)	(8)
Original								
Corrected								

To be used for transmitting all corrections of data previously punched. Complete data must be entered in the corrected lines is boxed in through 18. On the original lines enter only those items which are to be corrected. Data reported as "none" must be entered as zero. If not reported, enter as X. Enter in the space for remarks on the original line each of the two-month comparisons involved and indicate L. R. if used by late report. On the corrected line give the reason for the correction. Pay and hours must be reduced to a one-week basis. Corrections are not transmitted to Machine Tabulation until after the final closing of both of the two-month comparisons involved; therefore, if a late report is made which involves current month data, original figures must be used. Contact States should mail these forms to the Employment Statistics Division (not Machine Tabulation). These corrections are needed at the earliest possible date for use in revising published or tabulated data.

	Production workers or nonsupervisory employees				All employees				
		Number				Number			
Reported data (9)	L P (10)	Total both sexes (11)	Women (12)	Pay roll (1 week) (13)	Hours (1 week) (14)	Total both sexes (15)	Women (16)	Expl. code (17)	Remarks (18)
Original	X								
Corrected	X								

ADJUSTMENT RECORD (For BLS Use Only)

	Industry Sample			Man-hour Sample			
	(19)	(20)	(21)	(22)	(23)	(24)	
R. A.							
Rev.							

COLOR OF FORM: BUFF

FIGURE 6.26

BLS-ES-19

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25

MEMORANDUM Date_____

To:

From:

Re: Mailing list corrections or cancellations. (Non-Construction industries)

The following changes or cancellations have been made on our mailing list. Kindly correct your records to agree.

B. L. S. code	Name and address (Old record)	Change or cancellation* (Fill in only line to be changed)
	[Letter-size form]	

*In case of cancellations, please specify reason.

FIGURE 6.27

CONVERSION FACTORS AND LP CODES FOR CONVERTING TO WEEKLY EQUIVALENTS

[Use as hundredths for conversion factors; as whole numbers for LP codes]

Days worked by majority of employees during pay period reported	Days worked by majority of employees during workweek ending nearest 15th													
	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7
½	X													
1	50	X												
1½	33	67	X											
2	25	50	75	X										
2½	20	40	60	80	X									
3	17	33	50	67	83	X								
3½	14	29	43	57	71	86	X							
4	13	25	38	50	63	75	88	X						
4½	11	22	33	44	56	67	78	89	X					
5	10	20	30	40	50	60	70	80	90	X				
5½	09	18	27	36	45	55	64	73	82	91	X			
6	08	17	25	33	42	50	58	67	75	83	92	X		
6½	08	15	23	31	38	46	54	62	69	77	85	92	X	
7	07	14	21	29	36	43	50	57	64	71	79	86	93	X
7½	07	13	20	27	33	40	47	53	60	67	73	80	87	93
8	06	13	19	25	31	38	44	50	56	63	69	75	81	88
8½	06	12	18	24	29	35	41	47	53	59	65	71	76	82
9	06	11	17	22	28	33	39	44	50	56	61	67	72	78
9½	05	11	16	21	26	32	37	42	47	53	58	63	68	74
10	05	10	15	20	25	30	35	40	45	50	55	60	65	70
10½	05	10	14	19	24	29	33	38	43	48	52	57	62	67
11	05	09	14	18	23	27	32	36	41	45	50	55	59	64
11½	04	09	13	17	22	26	30	35	39	43	48	52	57	61
12	04	08	13	17	21	25	29	33	38	42	46	50	54	58
12½	04	08	12	16	20	24	28	32	36	40	44	48	52	56
13	04	08	12	15	19	23	27	31	35	38	42	46	50	54
13½	04	07	11	15	19	22	26	30	33	37	41	44	48	52
14	04	07	11	14	18	21	25	29	32	36	39	43	46	50
14½	03	07	10	14	17	21	24	28	31	34	38	41	45	48
15	03	07	10	13	17	20	23	27	30	33	37	40	43	47
15½	03	06	10	13	16	19	23	26	29	32	35	39	42	45
16	03	06	09	13	16	19	22	25	28	31	34	38	41	44
16½	03	06	09	12	15	18	21	24	27	30	33	36	39	42
17	03	06	09	12	15	18	21	24	26	29	32	35	38	41
17½	03	06	09	11	14	17	20	23	26	29	31	34	37	40
18	03	06	08	11	14	17	19	22	25	28	31	33	36	39
18½	03	05	08	11	14	16	19	22	24	27	30	32	35	38
19	03	05	08	11	13	16	18	21	24	26	29	32	34	37
19½	03	05	08	10	13	15	18	21	23	26	28	31	33	36
20	03	05	08	10	13	15	18	20	23	25	28	30	33	35

FIGURE 6.27—Continued

CONVERSION FACTORS AND LP CODES FOR CONVERTING TO WEEKLY EQUIVALENTS—Continued

[Use as hundredths for conversion factors; as whole numbers for LP codes]

Days worked by majority of employees during pay period reported	Days worked by majority of employees during workweek ending nearest 15th													
	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7
20½	02	05	07	10	12	15	17	20	22	24	27	29	32	34
21	02	05	07	10	12	14	17	19	21	24	26	29	31	33
21½	02	05	07	09	12	14	16	19	21	23	26	28	30	33
22	02	05	07	09	11	14	16	18	20	23	25	27	30	32
22½	02	04	07	09	11	13	16	18	20	22	24	27	29	31
23	02	04	07	09	11	13	15	17	20	22	24	26	28	30
23½	02	04	06	09	11	13	15	17	19	21	23	26	28	30
24	02	04	06	08	10	13	15	17	19	21	23	25	27	29
24½	02	04	06	08	10	12	14	16	18	20	22	24	27	29
25		04	06	08	10	12	14	16	18	20	22	24	26	28
25½			06	08	10	12	14	16	18	20	22	24	25	27
26				08	10	12	13	15	17	19	21	23	25	27
26½					09	11	13	15	17	19	21	23	25	26
27						11	13	15	17	19	20	22	24	26
27½							13	15	16	18	20	22	24	25
28								14	16	18	20	21	23	25
28½									16	18	19	21	23	25
29										17	19	21	22	24
29½											19	20	22	24
30												20	22	23
30½													21	23
31														23

FIGURE 6.28

FIRMS NOT TO BE CONTACTED BY STATE OFFICES FOR SAMPLE EXPANSION

Nonconstruction Industries

*Aetna Insurance Co.
*Aluminum Company of America.
American Car and Foundry
American Steel Foundries.
American Steel and Wire Co.
Armour and Co.
*Atlantic and Pacific Tea Co.
Bethlehem Steel Co.[1 2]
Bond Stores.[2]
The Brown Shoe Co.[2]
Burroughs Adding Machine Co. (wholesale outlets).
Butler Brothers.[3]
Cannon Shoe Co.[1 2]
Carnegie-Illinois Steel Corp.
Carter Oil Co.
*Continental Baking Co.
Continental Oil Co.
Endicott Johnson Corp.[1 2]
*Fireman's Insurance Co.
Ford Motor Co.
Frost Lumber Co.[2]
General Coal Co. (wholesale outlets).[1]
*General Exchange Insurance Corp. (division of General Motors).
*General Motors Corp.
The B. F. Goodrich Co. (wholesale and retail outlets).
Graybar Electric Co. (wholesale outlets).[2]
H. L. Green Co., Inc.[1 2]
Grennan Bakeries, Inc.
*Gulf Oil Corp. (wholesale and retail outlets).[2]
Jewel Tea Co.
Kee-Lox Manufacturing Co. (retail outlets).[1]
Koppers Co., Inc.
*S. H. Kress Co.
Thomas J. Lipton.
*Long Bell Lumber Co.
W. C. McBride, Inc.
*Metropolitan Life Insurance Co.
*Motors Insurance Corp. (division of General Motors).
National Tube Co.
Neisner Brothers, Inc.[1]
Nisley Shoe Co.[2]
Kidder Peabody Co.
J. C. Penney Co.[2]
*People's Service Drug Stores, Inc.
Ralston Purina Co.
*Martin Rosenberger Wallpaper Co.
Rose's 5–10–25¢ Stores.[1]
*Russell Stover Candies.
Shoe Corporation of America (Schiff Shoe Co.).[1 2]
Sinclair Oil Co.
Standard Oil Co. of Indiana (bulk tanks).[1]
*Stein Brothers and Boyce.[1]
Taystee Bread Co.
Tennessee Coal and Iron Co.
Tidewater Association Oil Co.
*Travelers' Insurance Co.
*Trundle Engineering Co.
*U. S. Life Insurance Co.
Walgreen Drug Stores.[1 2 3]
Western Union Telegraph Co.
*Westinghouse Electric and Manufacturing, Inc. (wholesale outlets).
Youngstown Sheet and Tube Co.
Western Auto Supply Co.[1 2]

*Firms that have definitely stated a preference for national reporting.

[1] These firms are being contacted for State reporting when a substantial number of units can be transferred to the State agencies at one time rather than being contacted every month for a new State transfer.

[2] These firms report on their own form and not on the standard Bureau of Labor Statistics schedule.

[3] By special arrangement with the company, all reports are sent to the Illinois State Office, from which point they are distributed to other interested State agencies and to BLS in Washington.

FIGURE 6.29

STATE TRANSCRIPT FORM

U. S. DEPARTMENT OF LABOR - BLS-ES-6
EMPLOYMENT STATISTICS DIVISION
(REV. 7-47)

TO BE USED FOR TRANSMITTING TO CONTRACT STATES, FOR INCLUSION IN STATE TABULATIONS AND ESTIMATES, TRANSCRIPTS OF REPORTS RECEIVED BY BLS DIRECTLY FROM REPORTING FIRMS OPERATING IN CONTRACT STATES

PLEASE RETURN PROMPTLY TO BLS

BLS Code
Name
Street
City
Location
Principal products, business, or line of trade

MONTH AND YEAR	PAY PERIOD FROM	PAY PERIOD TO	NO. OF ESTABLISHMENTS	LP CODE	PRODUCTION WORKERS OR NONSUPERVISORY EMPLOYEES: NUMBER TOTAL BOTH SEXES	NUMBER WOMEN	SALARIES AND WAGES EXCLUDING COMMISSIONS	COMMISSIONS AMOUNT	COMMISSIONS PERIOD COVERED FROM	COMMISSIONS PERIOD COVERED TO	HOURS	ALL EMPLOYEES TOTAL BOTH SEXES	ALL EMPLOYEES WOMEN	TRANSMISSION DATES SENT TO STATE	TRANSMISSION DATES REC'D FROM STATE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
194 Dec.															
194 Jan.															
Feb.															
Mar.															
Apr.															
May															
June															
July															
Aug.															
Sept.															
Oct.															
Nov.															
Dec.															

EXPLANATION OF INCREASES OR DECREASES, WAGE-RATE CHANGES (DATE, PERCENT, INCREASE OR DECREASE, NUMBER AFFECTED)

194 Jan.	
Feb.	
Mar.	
Apr.	
May	
June	
July	
Aug	
Sept.	
Oct.	
Nov.	
Dec.	

SECTION 7

Records and Reports

7.1 GENERAL

7.1–1 Integrated System

An integrated system of records and reports is essential for the smooth and efficient operation of the State Employment Statistics Program. The structure of this system need not be identical in all States, but any system should contain certain fundamental elements and standard forms for reporting estimates to Washington. A properly organized system will include the following elements:

a. Tabulations and listings of basic data.
b. Worksheet history files, showing in as clear and concise manner as possible, how each estimate has been prepared.
c. Permanent records of estimates prepared.
d. Master respondent file.
e. Delinquency control file.
f. Ledger record of employer reports.
g. Mailing file.
h. Files of schedules for past years.
i. Reports submitting estimates to Washington.
j. Other facilitating materials such as Benchmark Control file and charts of estimates.

These elements are discussed in the succeeding sections and suggested methods of handling them are described. It will be observed that under some forms of record keeping it is possible to consolidate several of the elements in the above list.

7.2 BASIC TABULATIONS AND WORKSHEETS

7.2–1 Three Categories of Basic Data

The basic tabulations and listings constitute the primary source materials from which the State employment estimates are prepared. They include three general categories of data:

(a) the various tabulations and listings furnished by UC agencies; (b) the monthly tabulations of the BLS reporting sample; and (c) employment tabulations for industries or segments of industries not subject to UC laws.

7.2–2 Materials Supplied by UC Agencies

The materials supplied by UC agencies are of four kinds: (a) The benchmark listing tabulations; (b) the ES–203 reports; (c) the ES–202 reports; and (d) listings of firms included in the ES–202 and ES–203 reports.

(a) Benchmark listing tabulations of UC accounts have been prepared for each State for the third quarter of 1943, 1944, and 1945 and in some cases for the third quarter of 1939. These listing tabulations are described in section 3.2, vol. II of the *Manual*. No benchmark listing tabulations were required for any quarter of 1946. For 1947, a first quarter benchmark was generally used. No definite policy has been formulated as to what period will be used as the benchmark quarter in subsequent years, but the first quarter is the most likely.

(b) The ES–203 reports are annual reports made by the State UC agencies to the Bureau of Employment Security, showing monthly employment and quarterly wage payments by 2- and 3-digit industry divisions. The ES–203's are described in greater detail in section 4.7–4,

7.2–2 Materials Supplied by UC Agencies— Continued

vol. I of the *Manual*. Copies of this report for 1943 and for each subsequent year should be on file in the Contract State offices.

(c) The ES–202 reports are preliminary quarterly reports made by the UC agencies to the Bureau of Employment Security. The information contained in them is similar to that included in the ES–203's. The data are arranged by 2-digit industry.

(d) Some State UC agencies run listings in industry-employer serial number order of the accounts contained in the ES–202 and ES–203 reports. If the UC agency can supply Contract State offices with these listings, they will prove very useful for checking the ES–202 and ES–203 reports for delinquency, errors, and classification changes.

7.2–3 File of Sample Tabulations

The Contract State office should prepare monthly tabulations of the BLS sample for use in preparing the State employment estimates. The form of these tabulations is discussed in greater detail in section 4.2, vol. II of the *Manual*. These tabulations should be on file in the Contract State office for every month beginning with the first month in which the BLS sample was used.

7.2–4 Files of Other Basic Data

In addition to the materials furnished by UC and the monthly tabulations of the BLS sample, there are certain other basic source data which should be kept on file in the regional or Contract State offices. The most important of these items are:

(a) The totals by 2-digit industry of employment in small firms covered by BOASI but presumed not covered by UC for September 1943. These figures were prepared by the Washington office for each 2-digit industry after correction of the raw data obtained from BOASI for delinquent reporters and industry allocation of employment for firms which had not been classified by industry. Similar data for March 1946 have been furnished to the Contract State offices for use in preparation of the 1947 benchmark.

(b) The Washington office supplied the Contract State offices with distributions by State of employment in class I steam railroads, switching and terminal companies, the Railway Express Co., and the Pullman Co. for September 1945 and July 1947 for use as a benchmark for estimating employment in SSA Industry 40 "Interstate Railroads." Employment by line for each of these companies has also been furnished for January 1943 and each subsequent month. Average employment for 1944 and 1946 for class II and III steam railroads and switching and terminal companies and for electric railroads subject to ICC, together with a State distribution of employment, was also sent out to the Contract State offices for inclusion in the estimates for SSA industry 40. These data will be supplemented later by benchmark data for subsequent years.

(c) Benchmark data for other industries which are not covered or only partially covered by UC have also been prepared by the Washington office and sent to the Contract States. The industries and periods covered by these materials are given below:

SSA industry	*Benchmark period*
44—Water transportation	September 1945.
45—Car loan companies reporting to Railroad Retirement Board (part of Industry 45 — Services Allied to Transportation).	1944 average; June 1946, December 1946.
80—Medical and Health Services.	September 1945.
821—Elementary, Secondary, and Preparatory Schools (nonpublic).	Academic years of 1942–43, 1943–44, 1944–45, and 1945–46.
822—Junior Colleges, Colleges, Universities, and Professional Schools (nonpublic).	Academic years of 1942–43, 1943–44, 1944–45, and 1945–46.
81—Law Offices.	September 1943.
83—Other Professional and Social Service agencies.	September 1943.

7.2–4 Files of Other Basic Data—Continued

86—Nonprofit Membership Organizations (not covered by OASI provisions of the Social Security Act or by Railroad Retirement provisions).	September 1943.
86—Nonprofit Membership Organizations (covered by OASI and Railroad Retirement provisions).	September 1943.

Benchmark data for these industries for subsequent periods are sent to the Contract State offices from time to time.

7.2–5 Worksheets for State Estimates

A set of worksheets for the preparation of the State estimates should be maintained in each Contract State office. The design and use of various worksheets may vary, as an office may find certain worksheet devices more practical than others in their particular situations. Hence, no attempt will be made to set up a standard set of worksheets. The purpose of this section is to indicate the types of worksheets essential to the preparation of benchmarks for industries covered by UC and of estimates when the ES–203, ES–202, and BLS sample methods are used, and to indicate the necessary items which should be included on each.

(a) It is desirable to keep worksheets and running records in duplicate sets. If the figures on each set are worked independently a comparison of the two sets furnishes a good check on the accuracy of the work. Each set should be clearly distinguished from the other ("1" and "2," "A" and "B," "Red" and "Black"). Each worksheet should indicate clearly the State, industries, and period for which it is being used to prepare data. It is also desirable to enter the date on which the figures were prepared on the worksheet. Any remarks on the special treatment of individual items should be carried as footnotes or entered on the back of the worksheet or in a note stapled directly to the sheet. It is also desirable to number the various columns on the worksheet and to include in each column heading brief instructions on the derivation of figures appearing in the column wherever this is possible. On running records and worksheets used for preparation of current estimates sufficient space should be provided to enter or prepare revisions of the data.

(b) A record should be kept of each UC account for which a classification adjustment was made in preparing the State employment estimates. These records should contain the UC account numbers of the firms, the 2- or 3-digit SSA industry in which it was classified by UC, the SSA industry in which it was classified by BLS for the preparation of the estimates, and employment for each month for which an adjustment was made. Other desirable items which may be included on this record are the firm name and the BLS code, if any. Since some of the classification changes will be made not only in the benchmarks but also in ES–203 and ES–202 data used for projecting the estimates from the benchmarks, it is desirable to indicate in what data (benchmark, ES–203 and ES–202) the adjustment was made. If different adjustments were made in different years, or if different adjustments were made in the benchmark than on the ES–203 in the same year, these facts should be clearly indicated on the record. If the employment data are derived from another source than the UC account, as for example, from the BLS report when BLS has an industry break-down while UC does not, the source of the employment data should be entered on the record.

(c) Worksheets for the preparation of the benchmark should include spaces for the entry of the unadjusted UC employment data for each month of the benchmark quarter, adjustments for delinquency and errors, the net adjustment for each month due to classification changes, the adjustment for small firms (BOASI factor), and the benchmark figures after all adjustments are made. It is desirable to show separately the deductions and additions made due to classification adjustments, and corrections made to the unadjusted UC figures due to delinquency and errors in reporting. These items may be entered on a set of worksheets other than that used to prepare the benchmark.

7.2–5 Worksheets for State Estimates—Con.

(d) Worksheets for the preparation of estimates using ES–203 trends should contain the unadjusted ES–203 figures, adjustments for errors and the net adjustment due to classification changes for each month of the year. The worksheet should also contain an entry for the factor used in bringing the adjusted ES–203 data to the benchmark level. Space for computing these factors may be provided on this worksheet or on the benchmark worksheet, or on a separate worksheet.

(e) Worksheets for the preparation of estimates using ES–202 data should contain the unadjusted ES–202 figures, adjustments for delinquency and errors in reporting, and the net adjustment for classification changes, for each month in the quarter covered by the ES–202 and the first month of the preceding quarter. The worksheet should also contain a space for the factor used to bring the adjusted ES–202 figures for the quarter to the level of the estimate for the first month of the preceding quarter. This factor should be computed directly from material on the worksheet, and therefore the estimated employment for the first month of the preceding quarter should be entered on it.

(f) Before the BLS tabulation can be used to prepare estimates, it is often necessary to add late reports received after the tabulation was run and to correct errors of various kinds, such as tabulating errors, changes made by the firm in the originally reported data, etc. For this purpose, a worksheet should be prepared which will contain, for the industries to be corrected, the tabulation totals for the previous and current months, and sufficient space for the data for individual late reports and corrections. The worksheet should contain a column whereby the BLS codes for these latter items can be entered, and a space for entering the corrected tabulation totals.

(g) The worksheet for computing estimates for manufacturing industries by the use of the BLS sample should contain entries for the following items:

(1) Production worker sample, current and previous months.

(2) Production worker, nonproduction worker, and total employment for the current and previous months from the "production worker – all employee" sample.

(3) Estimated production worker, nonproduction worker, and total employment for the previous month.

(4) Link-relative for production workers computed from the production worker sample.

(5) Link-relative for production workers and nonproduction workers computed from the "production worker – all employee" sample.

(6) Correction factor for nonproduction worker link-relative (see sec. 4.2–9, vol. II of the *Manual*).

(7) Corrected nonproduction worker link-relative.

(8) Estimated production worker, nonproduction worker, and total employment for the current month.

(h) The worksheets for computing estimates for nonmanufacturing industries by use of the BLS sample should contain the following items:

(1) Sample total employment, current and previous months.

(2) Estimated total employment, previous month.

(3) Link-relative computed from the sample.

(4) Estimated total employment, current month.

For those nonmanufacturing industries (mining, telephone and telegraph, laundries and dyeing and cleaning) in which the BLS sample has a break-down into production and nonproduction workers, the worksheet for manufacturing industries may be used if the State agency prefers.

(i) Examples of worksheets which may be used to prepare estimates using the BLS sample when it contains reports for atypical firms are shown in sections 4.3–2 and 4.3–3, volume II of the *Manual*.

(j) Examples of worksheets to be used in adjusting series prepared by the BLS sample method to a new benchmark are given in tables 5.1 and 5.2, volume II of the *Manual*.

7.2–6 Worksheets for Industries Requiring Special Methods

In addition to the set of worksheets used in preparation of benchmarks and estimates by use of ES–202, ES–203, and BLS sample data, worksheets will need to be devised for those industries where special methods are used in the preparation of estimates.

(a) Since the method of estimating employment for SSA Industry 40, Interstate Railroads, is well standardized, a worksheet for the preparation of the monthly estimates in this industry should be set up. It should include for each class I steam railroad and switching and terminal company operating in the State, the code number used to designate each line in the monthly releases on employment, the percentages of total line employment in the State as of July 1947, total line employment for each railroad in the current month, and estimated employment for each railroad in the State for the current month. Similar data for the Railway Express Agency, the Pullman Co., class II and III steam railroads and switching and terminal companies, and electric railroads, subject to ICC should be entered on the worksheet. Since, however, the Washington office has assigned no identifying codes to these firms, either the name of the company or an identifying code assigned in the regional or Contract State office should be entered.

(b) Worksheets will also be needed whenever special methods of preparing current estimates such as extrapolation, are used. Since these methods will vary considerably, no standard rules can be set down other than the general instructions in section 7.2–5 (a). Each Contract State office is free to devise these special purpose worksheets.

7.2–7 Permanent Records of Estimates

Permanent records of the estimates must also be kept. These will include entries for each industry for which separate estimates are prepared for each month from January 1943 to the current month.[1] These records can be kept on the forms BLS 1830 and 1830-A used for the annual report to the Washington office (see sec. 7.5). Revisions made to estimates for the current year between benchmark periods should be entered on these records. Preliminary and revised series should be clearly distinguished and revisions which are made but not published should be designated as such in some manner. When the series for an entire year has been adjusted to a new benchmark, a new record should be made out and marked clearly "Series Revised to Benchmark for ----------." Those adjusted figures will be used in all publication requests for data made subsequent to the revision to the new benchmark. The records of the series which they replace will be filed away for reference purposes. In many States the published series may be composed of different combinations of industries than those shown in the stub of the BLS 1830 and 1830-A. In those cases it may be desirable to set up permanent records with stubs corresponding to the industry combinations published. Form BLS 1830-x (fig. 7.5) may be used for this purpose. Finally, permanent records showing the actual published series with rounded figures may be kept. In the records showing complete industry detail, however, the complete figures should be entered without rounding.

7.2–8 Sample Worksheets and Forms To Be Sent to Washington

A complete set of the worksheet and record forms used in each Contract State office should be on file in the Washington office. These will prove useful in the work of reviewing estimates and will also make possible the interchange of valuable ideas concerning worksheet devices between the BLS and the Contract States.

[1] New Contract States will be supplied with monthly employment estimates from January 1943 through December 1946.

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7.3 MASTER FILES, LEDGER RECORDS, AND DELINQUENCY CONTROLS

7.3–1 Objectives

The files and records discussed in this section are designed with several objectives in view:

(a) To assist in maintaining an adequate sample at all times.

(b) To insure regularity of reporting.

(c) To maintain a current and accurate list of all reporters in the sample.

(d) To maintain accurate addresses and a record of mailing instructions for specific reporters, to insure prompt transmittal of the schedule between the Contract State office and the reporting firm.

(e) To maintain a continuous record of the data reported by the firm on employment, pay rolls, and hours. Such a record is valuable reference which can be used for comparison with current reports when the schedule is being edited, and for analysis both of the samples and the estimates.

7.3–2 Definitions

A record whose primary function is to maintain a complete listing of all firms, past and present, in the sample is called a *master listing* or *file*. A *ledger record* is used to keep a continuous record of data on employment, pay rolls, and man-hours furnished by the reporting firm. A *delinquency control file* is used to check on the reporting record of the firm, to make sure the schedule is received every month and to indicate which firms have become delinquent in reporting. A *mailing file* contains mailing addresses of the respondent firms and any special instructions about mailing schedules to specific firms. It is not necessary to set up each of these files separately, as two or more of them can frequently be combined.

7.3–3 Master Listing or Files

The essential feature of a master listing or file of BLS reporters is that it contain a complete listing, arranged in some convenient order, of all BLS reporters. It should also contain entries for former reporters whose names have been cancelled from the reporting list and a record of any changes in BLS codes. Two alternative methods of setting up a master file are discussed below. Still other methods are, of course, possible.

(a) MASTER LISTINGS OF BLS REPORTERS. The Washington office has supplied Contract States with master listings of firms in the BLS sample for each State. These contain the name, locations, and the industry codes for each reporter. These listings usually consist of three parts, the first arranged in BLS industry order, the second in alphabetic order, and the third in county order within the State. BLS master listings have been prepared for the active reporters in the sample as of November 1944, November 1945, and November 1946. These listings serve as a very important device in matching BLS reports with their corresponding UC accounts in connection with preparation of the benchmark. Also, they furnish a ready index to the firms in the BLS sample. This list can be used as a master listing if entries are made on it for firms added to the sample after the listing is run, and if cancellations and code changes are noted on it. The date on which all such amendments to the original listing are made should be entered. If this is done and the amended listings for each year are preserved, a complete historical listing of BLS reporters will be available.

(b) ADDRESSOGRAPH CARD FILES. Many Contract State offices maintain a master alphabetic card file of reporters. This has the advantage that it can be kept up to date more readily than the listing. If the State uses a different industrial code number than the Bureau, some of the records may be kept in State code order. Then a file or list of reporters in BLS code order, carrying both the BLS codes and the State codes should be maintained for reference purposes. Entries for cancelled and inactive reporters should be maintained in one of the files, preferably in the alphabetic file.

7.3–4 Ledger Record File

(a) Some form of ledger record of data reported by the respondents must be kept in the State office, since the shuttle schedules are out of the office for most of each month, and may even be lost.

(b) The ledger record file may take several forms. It may consist of "office record cards," on which the required data are transcribed by hand; "transfer posting cards," to which data are mechanically transcribed from a specially prepared machine listing, "machine billed cards," or the file of punch cards themselves. The essential feature of any ledger record is that it present a continuous record of the reported data on employment, pay rolls, and man-hours. A separate card should be set up for each report furnished by the respondent firms. Since in various types of analysis, it is frequently necessary to examine the data reported by the firm over a considerable period of time, it is essential that each ledger record card contain entries for at least 6 months, and preferably for a longer period. If punch cards with 1 month's data entered on them are used as the ledger record, all the cards for a firm should be filed together consecutively, with the latest month first. Provision must be made for obtaining machine listings of the firm data when they are needed.

(c) As a minimum, each ledger record card should have entered on it, employment, pay-roll, and man-hour figures, the number of establishments covered by the report, and the BLS code. Significant comments from the firm which explain important variations in the reported data should also be entered on the card. This may be done if desired by the use of a set of comment codes similar to those used by the Washington office. (See fig. 6.20.) All man-hour and pay-roll data must be reduced to a one-week basis. All corrected and amended data must be entered on the card, which must be clearly marked to designate which set of data was used in preparing the estimates for each month. The cards should be filed in BLS code order, or in State code order.

7.3–5 Mailing Files

To insure prompt transmittal of schedules between the Contract State and the reporting firms, an accurate and up-to-date mailing file of firms currently considered to be in the sample must be maintained. Another important function of this file is its use as a check against the schedules for the new year to determine whether there is a schedule for each firm and whether all the proper notations have been made on the schedules. The necessary notations to be entered on this file are discussed below:

(a) The card should contain the name and mailing address (including the postal zone number) of the firm. Additional data to facilitate the prompt handling of schedules, such as the names of company employees or officials to whose attention the schedules should be sent, and the location or plants covered by the schedule should also be entered on the card. These data should be included on each schedule sent to the company.

Note.—Location information used to identify the schedule should not be entered in the box entitled "Location of establishments covered in this report" which is to be filled in by the firm. For example, a schedule might cover three separate West Dakota locations which would be listed in the box by the firm. In order to identify the schedule as relating only to locations in that State, the notation "West Dakota locations" can be entered to the left of the box.

(b) Notations concerning special mailing instructions should be entered on the cards. The following situations require such special notations:

(1) Many firms supplying separate reports to the Bureau for different locations or activities wish to have all reports mailed together to the firm's office. For purposes of mailing, one of these reports is designated as an "include" and the other as "send with." The cards corresponding to these schedules should be properly cross-referenced with the BLS code of each "send with" entered on the "include" card and the BLS code of the "include" listed on each "send with" card.

7.3–5 Mailing Files—Continued

(2) Some important firms are regularly contacted by telegraph or telephone if their reports are not received by a certain time of the month. A note should be made on the card as to when this should be done and to what company official or employee the inquiry should be made.

(3) Other special mailing instructions such as "Send Duplicate," "No Second Request" should also be entered on the card.

(c) The card should contain the BLS code of the firm. If the State uses different industrial codes, the State code should also be entered on the card. This file should be arranged in the order most convenient to the State agency. In general, an arrangement in either alphabetic or industry order by report number would seem to be most satisfactory.

(d) Some States may wish to use an addressograph plate in preference to a "card" for this file.

7.3–6 Delinquency Control File

(a) The delinquency control file is required as a check on the reporting record of the firms in the sample, specifically to determine whether reports from specific firms have been received for a given month, and to determine which firms have become delinquent in reporting. The cards which make up the file should contain at least two items: (1) the BLS code number of the report, and (2) space in which a notation may be made each month indicating the receipt of the report. Many States may find it desirable to combine this file with some other file, particularly the mailing file or the ledger record file.

(b) At a designated cut-off date in each month, the cards in the delinquency control file corresponding to reporters which have sent in their schedules for the current month should be separated from those which have not. The cards in the residual file represent those firms to which schedules should be sent as second requests. If a second request is sent to a firm, a notation indicating that this has been done should be entered on the delinquency control card in the proper space. The schedule sent should also be marked "second request"; the BLS codes and establishment locations should be entered on the schedule. If a schedule has to be returned to a firm for questioning, that fact should be noted on the delinquency control card, so that second requests will not be sent to the firm. At the time when the schedules are being returned to the firm for the next month's data, the delinquency control file should again be checked to find out which firms did not report at all during the month, and new schedules should be prepared for such firms. These schedules should be marked "second request" or "third request" as the case may be.

(c) Since the employment estimates are projected by means of a sample, it is important that the sample be maintained at as full strength as possible. The delinquency control file should be inspected frequently for firms which have not reported for several months. Special letters should be written to these firms or they should receive a visit from some person connected with the Contract State agency to request them to resume reporting.

(d) If the delinquent firm fails to respond to requests to resume reporting, it should be cancelled from the reporting list. The Washington office should be informed that the firm has been cancelled on the standard memorandum for that purpose (fig. 6.26, see also secs. 6.5–13 and 6.5–14).

7.3–7 Reference: Files of Schedules for Previous Years

The use of files of schedules for previous years as a record is indicated in section 6.8.

7.4 BENCHMARK CONTROL FILES AND OTHER REFERENCE FILES

7.4–1 Files of UC Addressograph Cards

The UC agencies maintain reference files of their accounts, generally arranged in employer serial number order and in alphabetic order. Since UC data are used in the State Employment Statistics Program for benchmarks, it is

7.4–1 Files of UC Addressograph Cards—Con.

frequently necessary to have information regarding particular UC accounts. Therefore, reference must be made to these UC files very frequently. Some Contract States may have the files of UC addressograph cards which were set up when the State Employment Statistics Program was inaugurated in 1945. Three runs of these cards were made, from which the following files were set up: (1) straight serial number, (2) alphabetic, and (3) UC 3-digit industry (as of 1945) by employer serial number. Because of the extensive amount of industry reclassification which took place when the UC agencies switched from an SSA to an SIC coding structure in manufacturing at the beginning of 1947, the industry-employer serial number file is no longer very useful, particularly in manufacturing. The alphabetic and straight serial number files will still be of some value in locating particular accounts, however.

7.4–2 Benchmark Control File—General Description

In connection with developing the 1947 benchmark tabulation a file known as the "benchmark control" file was set up in many States. (See fig. 7.1 for a copy of form BLS 1904, the card used in making up this file.) Cards are included in this file for the following groups of firms:

(a) UC accounts with employment above selected cut-off points in at least 1 month of the first quarter 1947 benchmark period. These are the larger accounts which it is necessary to check in each benchmark for classification changes, for delinquency, and for errors in reporting.

(b) Firms included in the BLS list of reporting firms.

7.4–3 Information Included

The following information was entered on the benchmark control cards at the time the file was set up:

(a) The name of the firm.

(b) The industry under which the account was included in the 1947 benchmark.

(c) The E. I. (Employer Identification) number of the corresponding BOASI account (for BLS reporters only).

(d) The locations covered by the UC account.

(e) The locations covered by the BLS report (if the firm reports to BLS).

(f) The 1947 UC account number.

(g) The 1945 and 1947 BLS codes (if the firm is a BLS reporter).

(h) Employment for the months of the first quarter of 1947 as reported to UC and BLS.

As a supplement to the "benchmark control" file, a 3 x 5 card file of all multiple accounts, that is, those for which the UC agency has obtained an industry and/or area break-down, was set up in either straight employer serial or alphabetic order and cross-referenced to the benchmark control file. This additional file was necessary because multiple unit accounts often give rise to special problems and difficulties in any matching or checking project.

7.4–4 Arrangement of File

The benchmark control file is arranged in 1947 UC industry employer serial number order, that is, in the same order as the 1947 UC benchmark listing.

7.4–5 Summary of Uses

The benchmark control file can be used for a number of purposes. It was used when the 1947 benchmark was prepared to match BLS reporters with their corresponding UC accounts. Among other possible uses of this file the following are especially important:

(a) Its use as a record of sample expansion.

(b) Its use as a device in checking the UC benchmark listing for delinquency, classification changes, errors in reporting and significant changes in the larger accounts since the last benchmark period.

7.4–6 Use of the Benchmark Control File as a Record of Sample Expansion

(a) In the discussion of the use of the benchmark control card as a sample expansion record,

7.4–6 Use of the Benchmark Control File as a Record of Sample Expansion—Con.

a sample selection from a listing of UC accounts is assumed for illustrative purposes. Other methods of selecting the firms to be solicited may be used. Regardless of the manner in which the list of firms is prepared, it is important to know whether any firms on the list are already BLS reporters or if any of them should not be solicited for other reasons. It is also necessary, if the firm is liable to UC, to know its UC account number and employment at the latest benchmark period. Further, regardless of how the solicitation of the firm is made, it is essential for efficient conduct of the program to have a record of the various steps in the sample expansion procedure, and of the final result of the solicitation. The scheme of checking and recording these items as described in the following paragraphs can be used with relatively minor modifications with almost any type of establishment sampling program.

(b) The listing of UC accounts used for selecting the firms to be included in the sample expansion will generally be either the latest benchmark listing or a listing of the accounts in the benchmark specially arranged for the purpose of selecting a sample.

(c) The accounts to be solicited for addition to the sample should be checked off on the UC listing. These items should then be compared with the cards in the benchmark control file. If a card corresponding to an item checked on the listing is found and the card indicates that the firm is already reporting to BLS or that the firm should not be contacted for addition to the sample (see item 3 on the card) draw a line through the check opposite the item on the listing, to indicate that the firm should be removed from the expansion list. In all other cases where a benchmark control card is found, withdraw it from the file. If no benchmark control card is found for a given item, one should be made up, and the UC account number, the employment by month in the benchmark period, and the locations covered by the UC account entered on it.

(d) Check the newly made benchmark cards against a complete file of cards for UC accounts arranged in employer serial number order to get the name and address of the firm, and enter it on the card. The benchmark control cards which were withdrawn from the file usually will not have the firms' addresses on them, so these cards must be checked against a complete file of UC accounts arranged either in alphabetic or employer serial number order to obtain this information. If there are 3 by 5 card files of 1945 UC accounts available in the Contract State offices as much use should be made of them as possible before the files at the UC agency are consulted.

(e) In the case of benchmark control cards made up from lists of firms in noncovered industries, enter the name and address on the card from the list. Write "Not Subject" in the space provided for UC account number in the most recent benchmark period. If any employment information is given, enter it in the space provided for UC employment in the latest benchmark period. This figure should be followed by noting, in parentheses, the period for which the data are given and the source of the information should be entered under item (18) "Remarks and Comments." The source will generally be the agency, organization or publication from which the list was obtained.

(f) If the item on the UC listing is a subaccount of a multiple account, item (6) on the benchmark control card should be checked and proper cross-references made on the 3 by 5 file of multiple accounts. If it is desired to request a report for an additional establishment from a firm already reporting part of its operations to BLS, a benchmark control card cross-referenced as completely as possible with the cards for the units already reporting to BLS should be made up.

At this stage, the benchmark control cards to be used for sample expansion should be checked to see if there are any units of firms which are not to be contacted by the Contract State offices.[2] If reports are desired for these units the Washington office should be requested to ask the

[2] See fig. 6.28, vol. II, "Firms Not To Be Contacted by State Offices for Sample Expansion—Nonconstruction Industries."

7.4–6 Use of the Benchmark Control File as a Record of Sample Expansion—Con.

companies for these reports. The benchmark control cards should be held until the Washington office notifies the Contract State offices whether or not the reports requested have been received from the firms. The proper notations should then be made on the benchmark control cards which are then to be filed back in the benchmark control file.

(g) In item 13, "Schedule Form Used: BLS" enter the number of the schedule to be used in soliciting the firm. A list of industries with the numbers of the BLS schedules used to collect employment data for each is given in section 6.2, volume II of the *Manual*. This schedule number will serve as an instruction to the typists as to what schedule to send to the firm.

(h) At one time, it was required that Contract States receive prior permission from Washington to contact firms in sample expansion. This is no longer required, so that item (10) of the benchmark control card may be ignored.

(i) Schedules and solicitation letters may now be prepared from the remaining benchmark control cards for firms solicited for sample contact. Any special instructions on individual firms may be listed on a slip to be attached to the upper right-hand corner of the front (the "Benchmark Control Card" side) of the card. The date each request is sent to the firm is to be entered under item (11) on the card. Space is provided for three requests for data. The Contract States will generally wish to solicit the firm twice to secure employment reports, but the third request is optional.

(j) Solicitation of a firm may have any of the following results:

(1) The firm fails to respond to the request for information.

(2) The firm definitely refuses to report or the report received indicates that the firm should not be included in the sample, or the firm is out of business.

(3) The firm supplies an employment report to the BLS.

(k) If a sufficient period of time (generally 1 month) has elapsed after the last request for information without a reply from the firm, the firm can be classified as "nonrespondent." The benchmark control cards should be filed back into the benchmark control file.

(l) If the firm replies to the request to report with a definite refusal, enter the reasons under item (16) "Firm Will Not Report" on the card and check item (3). Then file the card in the benchmark control file. If the firm is out of business, or if for any other reason the firm should not be included in the sample, this information should be entered in item (17) on the card. Item (3) should also be checked and the card filed back in the benchmark control file.

(m) If the firm sends in a schedule, enter the date on which it was received in item (11) under the request (1st, 2nd, or 3rd) to which it is a reply. List the locations covered by the report under item (7) and enter the product or activity information given in section I of the schedule under item (14) of the card. The employment reported should be entered on item (15). In those Contract States where ledger record cards for new firms are made up as soon as the first report is received, items (14) and (15) need not be filled in.

(n) The schedules should now be sent to the Washington office for coding, together with a copy of the standard memorandum for requesting new codes from Washington, BLS form ES–7 (figure 7.2). The date this material is sent should be entered on the benchmark control card under item (12). The date the ES–7 is returned from Washington with the codes requested should also be entered in item (12). The newly assigned BLS code (followed by the letter N, to indicate a new firm) should be entered under item (8) on the card in the space for the most recent benchmark. These cards should not be filed back into the benchmark control file until they are definitely incorporated into the regular BLS sample.

(o) During the sample expansion program, the benchmark control cards for the firms solicited should be kept in a processing order file set up as follows:

7.4–6 Use of the Benchmark Control File as a Record of Sample Expansion—Con.

(1) Cards for firms which have received first requests for data.

(2) Cards for firms which have received second requests.

(3) Cards for firms which have received third requests (if any).

(4) Cards for reports which have been sent to Washington for coding.

(5) Cards for reports for which codes have been received from Washington but which have not yet been incorporated into the sample.

(p) Within each group the cards may be filed in any desired order, but an alphabetic arrangement is probably best for most purposes. Cards for firms involved in correspondence, whether with the company or with the Washington office, may be kept either in a separate file or in the regular file and marked with identifying tabs. Since so many cards must be withdrawn from the benchmark control file when a sample expansion program is conducted, it is suggested that sample expansion be kept at a minimum during the time an adjustment to a new benchmark is being prepared.

(q) The industry to be entered under item (4) "1947 Industry" is the same as that in which the account was included in the 1947 benchmark. This may differ from the code assigned by BLS to the new firm but its use satisfies the policy requirement that the classification of the firm used in preparation of the 1947 benchmark is to be used until the next benchmark period.

(r) The benchmark control cards will not only furnish a complete record of the results of the sample expansion program but also through the use of the dating-in process embodied in items (11) and (12) will provide a control over the various steps of the process. The employment information given in item (15) can be used to supplement the regular reporting sample until such time as the report is incorporated into the sample.

7.4–7 Contacting Multiunit Firms in Sample Expansion

Firms operating several establishments which cut across industry lines present a real problem in industry classification when they are unable to supply separate establishment reports. Since vertically organized firms (for example, a steel company which obtains ore from its own mines has a fleet of ore ships, its own railroad, etc.) account for such a large segment of total nonagricultural employment, employment figures would lose a great deal of significance by industry if each such firm filed one report for all its operations. Such firms also frequently present difficulties in preparing area estimates.

Moreover, horizontally organized firms (multiunit firms, all of whose units are classifiable in the same industry) which cover several areas present a problem in area classification. Employment estimates by industry by area would be seriously deficient in certain areas if all horizontally organized firms filed only national reports.

It is therefore the BLS policy to solicit reports as follows from multiunit firms (in the order of preference):

(a) Each local establishment should be solicited for a report to shuttle between the establishment and the Contract State agency or the Washington BLS office if there is no contract agency.

(b) If not successful, go up the company's administrative line within the State in an attempt to obtain the report. Some compromise may be necessary. The company may wish to file combined reports from one or more State offices. Attempts should be made to limit the combinations to establishments in the same industry in the same area. If necessary to avoid combinations which cross industry or area lines (important areas, at any rate), reports from a suitable sample of the company's establishments in the State instead of from all establishments are acceptable. As a last resort, a Regional or U. S. report is acceptable. Whatever reports are obtained should shuttle between the reporting agency and the State contract agency, if possible.

(c) If negotiations within the State are not fruitful, the Washington office of BLS should be notified for whatever help it may render. A solicitation through the company's home office

7.4–7 Contacting Multiunit Firms in Sample Expansion—Continued

may yield one of the arrangements in (a) or (b) above, or some other reporting system such as reports by industry and area between the home office and Washington.

In summary—to meet close operating schedules, the objective is to obtain reports from the lowest administrative units of the company as possible (for example, the individual establishment; next, a district office within a State; next, a State office; etc.). Experience has indicated that delays in reporting are avoided if the reporting agency does not have to await and then consolidate reports from many locations. And, if there is a Contract State agency, time is saved by having the reports sent there by the reporting agency rather than to Washington.

Finally, the list of national firms not to be contacted by Contract State agencies for employment reports on BLS forms (see fig. 6.28, vol. II) must be observed strictly.

7.4–8 Use of the Benchmark Control File for Checking Benchmarks

(a) When a new benchmark is prepared the benchmark control file can be used as a device for checking the larger accounts in each industry for delinquency, errors in reporting, classification changes, and significant changes since the last benchmark. In general, only the largest firms which account for 30 to 50 percent of the total employment in each 2-digit industry and all other accounts with more than 100 employees should be checked. The benchmark control file contains a number of entries for smaller firms; for example, BLS reporters with employment below these cut-off points. These may be passed over in the checking process.

(b) When a new UC benchmark listing is received, as for example a 1948 benchmark, compare it with the benchmark control file. For each account on the listing above the cut-off points for which there is a benchmark control card, place a double check on the listing and enter the employment for each month of the 1948 benchmark quarter on the card. Also, place a check in the space for the 1948 account number to indicate that it has not been changed since the 1947 benchmark listing was run.

(c) Place a single check after each item on the 1948 benchmark listing for which no benchmark control card was found and which shows employment above the cut-off points. Also pull from the file each benchmark control card showing employment above the cut-off points in the 1947 benchmark period and for which no item was found on the 1948 benchmark listing. These cards correspond to the following classes of accounts:

(1) Accounts for which there has been a change in employer serial number and/or industry code since the 1947 benchmark listing was run.

(2) Accounts which have become nonliable to UC since the 1947 benchmark was prepared.

These cards should be checked against the files at the UC agency for the 1948 UC account numbers which should be entered in the proper place on the card. If there are any cards for accounts which were nonliable in the 1948 benchmark period, write "nonliable" in the spaces on the card for the 1948 UC account number and the 1948 benchmark employment. The remaining cards should then be checked against the 1948 benchmark listing and the UC employment data for the 1948 benchmark period entered on the card. Each item on the listing for which a card is found should be indicated with a double check.

(d) Some of the items on the listing with employment above the cut-off points for which no cards were found as a result of the preliminary comparison of the cards with the listing items will have been matched when the 1948 UC account numbers for the cards for which no listing items were found are located. Benchmark control cards should be made up for those remaining listing items checked off because they had employment above the cut-off in the 1948 benchmark period and for which no benchmark control cards were found. These represent accounts in the following three classes:

(1) Accounts which had employment below the cut-off points in the 1947 benchmark period,

7.4–8 Use of the Benchmark Control File for Checking Benchmarks—Continued

but which had no change in either industry or employer serial number since the 1947 benchmark period.

(2) Accounts which had employment below the cut-off points in the 1947 benchmark period and which had a change in industry and/or employer serial number since the 1947 benchmark period.

(3) Accounts newly liable to UC since the 1947 benchmark period.

The 1948 account number and employment data can be entered from the 1948 benchmark listing. The name of the firm and the 1947 account number can be obtained from files at the UC agency in employer serial number order. If there is available a file of 3 by 5 UC addressograph cards for 1945 in employer serial number order in the Contract State offices, this should be consulted first as the desired information can be obtained from this file for all accounts for which there has been no change in account number between 1945 and 1948. The 1947 UC employment data is obtained from the 1947 benchmark listing. If any account was found to be nonliable in 1947, write "nonliable" in the spaces on the cards for the 1947 UC account number and 1947 employment data.

(e) For those accounts with employment above the cut-off points which are also BLS reporters, the BLS employment for the 1948 benchmark quarter and the 1948 BLS code (if different from the 1947 code) should be entered on the card. The employment data can be obtained from the ledger record cards used to record employment, pay-roll, and man-hour data for individual firms. If no code change occurred between 1947 and 1948, put a check on the card in the space provided for the 1948 BLS code. If the firm was removed from the BLS reporting list or failed to report for the period, write "cancelled" or "not reporting" as the case may be, in the space provided for the 1948 BLS employment information on the card.

(f) The benchmark control cards which were withdrawn from the file and those which were newly made up, should now be filed back in the benchmark control file. The file is now ready for use in making an analysis of the larger accounts in each 3-digit industry in the 1948 benchmark.

7.5 ANNUAL REPORT OF STATE EMPLOYMENT ESTIMATES

7.5–1 Nature and Purpose of Report

Forms BLS 1830, 1830A, 1830–x are standardized official reports and permanent records of monthly estimates of total employment, production workers, and nonproduction workers, by State by industry. The forms are used by Contract State offices in transmitting estimates to Washington; are used by the Washington office as a permanent record sheet; and are recommended for use by Contract State offices as a transmittal, record and worksheet device. (See figs. 7.3, 7.4, and 7.5 for examples of these reports.)

7.5–2 Coverage

(a) ITEMS ESTIMATED.

(1) Form BLS 1830 provides for estimates of total employment, production workers, and nonproduction workers, in manufacturing industries. A separate sheet is used for each type of worker reported. Do not show two different kinds of workers on the same sheet. When total employment is reported on BLS 1830, provision is also made for summarizing total nonagricultural employment.

(2) Form BLS 1830–A provides for estimates of total employment in selected nonmanufacturing industries.

(3) Form BLS 1830–x provides for estimates for any finer industry detail for which the State prepares estimates other than are shown on Forms 1830 and 1830–A.

(b) INDUSTRIAL DETAIL.

(1) Estimates for the following industrial categories are to be reported on Form BLS 1830: nonagricultural total; each of eight industrial divisions; each of the SIC 2-digit industrial major groups in manufacturing; and the

7.5–2 Coverage—Continued

BLS durable and nondurable goods subtotals in the manufacturing division. The durable subtotal is the sum of major groups 19, 24, 25, 32, 33, 34, 35, 36, 37, and 38. The nondurable subtotal is the sum of the remaining manufacturing major groups.

(2) Estimates for certain nonmanufacturing industry categories are to be reported on Form 1830–A. The stub of this form lists all SSA 2-digit industries (with some combinations) in all the nonmanufacturing major divisions except construction and government. The industry categories listed below represent the minimum amount of industrial detail which must be submitted on the report.

Mining and Quarrying (SSA 10–14). Each 2-digit industry in this division.
Transportation, Communications, and Utilities (SSA 40–49).
- Interstate railroads (SSA 40).
- Other transportation (SSA 41–45).
- Communications and Utilities (SSA 46, 48, 49).

Trade (SSA 50–59).
- Wholesale trade (SSA 50, 51, and wholesale segment of 52).
- Retail trade (SSA 53–59 and retail segment of 52).

Finance, Insurance, and Real Estate (SSA 60–67).
Service (SSA 70, 72–76, 78–83, 86).
Miscellaneous (SSA 07–09, 99).

(3) Form BLS 1830–x is designed for the submission of all industry detail not provided for on Forms BLS 1830 and 1830–A. This includes published 3-digit industries in manufacturing.

7.5–3 Frequency Due Date and Cut-off Date

These annual reports are to be prepared for receipt in Washington between February 1 and April 1 of each year. Each report should contain the latest data and revisions available at the time of the preparation of the report, but in no event should the cut-off be earlier than January 31.

The report made each year is in a sense two separate reports: a final report for the year preceding the latest benchmark and for the benchmark period itself, and a preliminary report for the period beginning with the first month following the benchmark quarter through the most recent month for which data are available at the time the report is prepared.

These due dates are set so as to permit adjustment of estimates for both the year preceding the benchmark period and for the year including the benchmark period to new benchmark data.

EXAMPLE.—The annual report prepared for 1948 should reach Washington between February 1, 1949, and April 1, 1949. All estimates should be adjusted to first quarter 1948 benchmarks. The report should present a final adjustment of all the estimates for all the months of 1947 and the first quarter of 1948 and a preliminary adjustment of estimates from April to November 1948 (or January 1949, if the latter due date is used). A final set of estimates for 1948, adjusted to first quarter 1949 benchmarks will be prepared between February 1, 1950, and April 1, 1950.

These due dates are made on the assumption that first quarter benchmarks will be used in the preparation of the estimates. If in some future year a third-quarter benchmark is used, the due dates will be changed as explained below. In this case, the benchmark listing is to be run as soon as possible after the ES–203 for the year is run, that is, immediately after July 31 of the following year. The estimates are to be revised to the new benchmark and the annual report submitted to Washington by November 1. For example, the third quarter 1945 benchmark listing was due on July 31, 1946, and the revisions of the estimates for 1945 and the first six to nine months of 1946 were to be completed and the annual report embodying these revisions sent to Washington by November 1, 1946. The States will be notified of any deviations from this general policy on due dates.

Note.—In a few instances, circumstances in a particular State may require some modification of the regular procedure with respect to both frequency and extent of revision of estimates. Such special circumstances should be brought to the attention of the Washington office by the Contract State office.

7.5–4 Number and Distribution of Copies

The number of copies to be prepared is optional except that one copy is to be submitted to the BLS Washington office and one copy to the BLS regional office.

Any State which desires a large number of copies of the reports is authorized to duplicate an executed copy of the report provided the duplicated form is a substantial facsimile of BLS 1830, 1830–A, or 1830–x.

7.5–5 Rounding of Numbers

All estimates shown on the reports are to be exact work-sheet figures, and are not to be rounded. Estimates for each subgroup should add to the total shown for the group, except for the averages shown in column 16 (see sec. 7.5–6 (f)).

7.5–6 Item Instructions

(a) HEADINGS.

(1) The title is to include the type of employment being reported (total, production, or nonproduction) and the year which the data cover.

(2) The right-hand corner is to contain the name of the State for which employment is reported; the BLS region to be designated by the city location of the Regional office; and the date on which the estimates are being transmitted.

(3) The left-hand corner shows the date of the latest benchmark to which the estimates have been adjusted.

(b) COLUMN 1—INDUSTRY STUB. The stub of BLS Form 1830 has been prepared to include data to which most frequent reference is made, and to give a summary of total employment in nonagricultural employment. The stub of BLS Form 1830–A is designed to include data on selected nonmanufacturing industries on which the Washington office expects to issue separate summaries. The numbers in parentheses following the industry titles are SSA codes.

The stub of BLS Form 1830–x has been left blank and the estimates entered on it should be listed in straight SIC–SSA order.

(c) COLUMN 2—PUBLICATION CODE. The column headed "Publication Code" is designed to identify those industrial categories which are published in combinations rather than separately by the State offices. The method of posting the column is illustrated by the following example. Suppose that West Dakota publishes separate estimates for each of the categories listed in the stub of BLS Form 1830 except for the following combinations of industries: (1) Textiles, apparel, and leather; and (2) Trade, finance, service, and miscellaneous. In this case, the West Dakota report should show in column 2 the number "1" opposite the stub entries for Textile mill products, apparel and finished textiles, and leather; the number "2" opposite the stub entries for Trade and for Finance, service, and miscellaneous. All other lines in column 2 should be blank. Thus the entry in column 2 identifies which are combined and shows the context of the combination.

(d) COLUMN 3—PROJECTION. This column must be filled in for every industry for which an estimate is submitted except for those opposite which an "x" appears in column 3. The codes to be used are those indicated in the upper left-hand corner of these forms.

EXAMPLE.—If the Primary Metal Industries have been projected by the BLS sample and the ES–202's have been used for the Electrical Machinery industry, columns (1) and (3) should read:

Industry (Col. 1)	*Projection (Col. 3)*
Primary metal industries	1
Electrical machinery	3

If an industry has been projected by an "other" method, or a combination of methods during the year, the number "4" should be entered in column (3) and a description of the special techniques should be submitted with the report. If one method has been used for a part of an industrial category and another method for another part, the number "4" is entered in column (3) and the explanation submitted with the report.

(e) COLUMNS 4–15—MONTHS. Enter monthly estimates.

7.5–6 Item Instructions—Continued

(f) COLUMN 16—AVERAGE. The average of the twelve monthly estimates is to be computed for each industrial category and entered in column 16. Show the actual mean value of the twelve monthly figures for the category; do not force the averages of subgroups to add exactly to the average shown for the group. The subgroup averages will add, of course, to group averages except for minor rounding errors introduced in the computations.

7.5–7 Remarks, Footnotes, and Comments

All changes in employment in excess of five percent between consecutive months should be explained. These explanations along with all other remarks, special footnotes, and comments should be assembled on supplementary standard letter-size sheets under the title "Remarks, footnotes, and comments on the 194– Annual Report of State Employment Estimates for (State), Prepared (date)." *Copies of the supplementary sheets must accompany each copy of the report.*

7.6 REGULAR MONTHLY REPORTS

7.6–1 Nature and Purpose of Report

Forms BLS 1932 and BLS 1933 are standardized official reports of monthly estimates of total employment, production workers, and nonproduction workers, by State, by industry. The forms are used by Contract State offices in transmitting estimates to Washington. (See figs. 7.6 and 7.7 for examples of these reports.)

7.6–2 Coverage

(a) ITEMS ESTIMATED. Forms BLS 1932 provides for estimates of total employment, production workers, and nonproduction workers for each of the 2-digit manufacturing industries, while form BLS 1933 provides for estimates of total employment for selected nonmanufacturing totals and for a summary of total nonagricultural employment. On each report, data are to be posted for the current month (to which the report refers), the immediately preceding month (revisions of figures from the preceding report should be indicated with an asterisk) and the current month 1 year ago. It is intended that reports submitted on this form be as nearly "final" as the due date will permit. Therefore few revisions should be necessary before the establishment of the next new benchmark. Any important revisions for months other than those shown on the face of the report should be reported to Washington by memorandum.

(b) INDUSTRIAL DETAIL.

(1) Estimates for the following industrial categories are to be reported on form BLS 1932: total manufacturing; each of the SIC 2-digit industrial major groups in manufacturing; and the BLS durable and nondurable goods subtotals in the manufacturing division. The durable subtotal is the sum of major groups 19, 24, 25, 32, 33, 34, 35, 36, 37, and 38. The nondurable subtotal is the sum of the remaining manufacturing major groups.

(2) Estimates for the following industrial categories are to be reported on form BLS 1933:

- Mining and Quarrying (SSA 10–14).
  - Each 2-digit industry in this division.
- Transportation and Utilities (SSA 40–49):
  - Interstate railroads (SSA 40).
  - Other transportation (SSA 41–45).
  - Communications and public utilities (SSA 46, 48, 49).
- Trade (SSA 50–59):
  - Wholesale trade (SSA 50, 51, and wholesale segment of 52).
  - Retail trade (SSA 53–59 and retail segment of 52).
- Finance, Insurance, and Real Estate (SSA 60–67).
- Service and Miscellaneous (SSA 70, 72–76, 78–83, 86; 07–09, 99):
  - Miscellaneous (SSA 07–09, 99).
- Construction (SSA 15–17).
- Government.
- Manufacturing (total employment).
- Total Nonagricultural Employment.

7.6–3 Frequency and Due Date

These are monthly reports and should be received in Washington not later than the end of the second month following the current month to which the report refers. For example, the report for January 1947 should be received in Washington not later than March 31, 1947.

7.6–4 Number of Copies

The number of copies in which the reports are prepared is optional. However, one copy of each report must be sent to the BLS Washington office and one copy to the BLS regional office.

7.6–5 Rounding of Numbers

All estimates shown on the reports are to be exact worksheet figures and are not to be rounded. Estimates for each subgroup should add to the total shown for the group. In manufacturing, production and nonproduction workers should total to the all employees figure for each item.

7.6–6 Item Instructions

(a) HEADINGS.

(1) The title is to include the current month and the year to which the data relate.

(2) The right-hand corner is to contain the name of the State for which employment is reported; the BLS region to be designated by the city location of the regional office; and the date of the latest benchmark to which the estimates have been adjusted.

(b) INDUSTRY STUB. The stubs of the tables have been prepared to include data to which most frequent reference is made. The numbers in parentheses following the titles of the industries are SIC–SSA industry codes.

7.6–7 Remarks

All unusual changes in employment levels should be explained on the reverse side of the form along with other pertinent comments.

7.7 CHARTS

7.7–1 General

Charts form a very valuable visual aid in the analysis of the employment estimates. They can be used to point out significant trends, thus providing a useful adjunct to the economic analysis of the data. From the standpoint of technical procedure, an intelligent reading of the charts may reveal errors in the basic data, such as those arising from misinterpretation of the $3,000 clause by firms reporting to UC, or in the estimates themselves, as for example the downward bias arising from the use of the link-relative method. Examination of the charts may give rise to ideas for improvement of estimating techniques. Charts may also be used as a guide to determine which of alternative procedures results in the better estimates. It is important, therefore, that a complete set of charts of the employment series be prepared and kept up on as current a basis as possible. This set should include charts for all industries for which estimates are prepared, all published combinations of them, the eight major industrial divisions, and total employment in nonagricultural establishments. Both preliminary and revised series should be plotted on the charts. ES–202 and ES–203 data, the benchmark totals before adjustment for classification and for the small-firm multiplier, and any other significant data, such as employment shown in the Census of Manufactures, should be entered on the charts. For manufacturing industries, a separate set of charts showing production worker, nonproduction worker, and total employment should be kept. A similar set may also be prepared for those nonmanufacturing industries for which production and nonproduction estimates are made. The charts should cover a five-year period, with a one-year overlap between charts for successive periods. For example, the first set of charts would contain data for 1943 through 1947, while the second set would contain data for 1947 through 1951. All charts should be marked as to the State, industry, and period covered by the data, and each series plotted should be clearly distinguished from the other series on the charts.

FIGURE 7.1

BENCHMARK CONTROL CARD

(1) State _____ (3) Do not contact for sample ☐ (4) 1947 Industry _____
(5) E. I. Number _____
(6) Multiple Unit Firm ☐
(2) Name _____ (7) Locations _____
Address _____ U. C. _____
City and State _____ B. L. S. _____

Agency	(8) Codes Assigned 1945	1947	1948	1949
U. C.				
B. L. S.				
Contract State				

	(9) Employment in Benchmark Quarter 1945 ( )	1947 ( )	1948 ( )	1949 ( )
U. C.				
B. L. S.				

(FRONT OF CARD) BLS 1904

SAMPLE EXPANSION RECORD (13) Schedule Form used: _____

	Dates Information Requested (10) Contact Permission Washington	(11) Contact of Firm 1st.	2nd.	3rd.	(12) BLS Code from Washington
Requested					
Received					

(14) Product or Activity:

(16) Firm Will Not Report: (Give Reasons)

(15) Employment Reported

Date							
Employment							

(17) Do Not Contact: (Give Reasons)

(18) Other Remarks and Comments:

(BACK OF CARD)

FIGURE 7.2

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
WASHINGTON 25

BLS–ES–7
(Rev. 7/46)

MEMORANDUM OF TRANSMITTAL Date.....

TO:

FROM:

SUBJECT: Nonconstruction industries—schedules for BLS coding.

Instructions: This form should be prepared in duplicate by Regional or State office and sent to Washington with initial reports for BLS coding. Original copy, with BLS codes assigned, will be returned to Regional or State office and duplicate will be retained in Washington.

To be filled in by Regional or State office		To be filled in by Washington office		
NAME AND ADDRESS OF FIRM (Show establishment location if different from mailing address)	REMARKS [1] (Principal products, SSB codes, etc.)	CENSUS CODE	BLS CODE NO.	REMARKS [1]

[1] Use separate sheet of plain manifold paper if space provided for "Remarks" is not sufficient. Em. Stats. Div.

FIGURE 73
U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

State of _____

These estimates have been projected by monthly trends of
1. BLS Sample 3. ES-202
2. ES-203 4. Other

ESTIMATED _____ EMPLOYMENT IN NONAGRICULTURAL INDUSTRIES, BY MONTH, FOR _____ (YEAR)

BLS Region _____ (CITY)

as identified by codes in column (3) and have been adjusted to _____ (EMPLOYMENT DATE)

Estimates prepared _____ (MONTH & YEAR) by ☐ Region ☐ State

INDUSTRY and SIC Code (1)	PUB. CODE (2)	PRO-JEC-TION (3)	JANUARY (4)	FEBRUARY (5)	MARCH (6)	APRIL (7)	MAY (8)	JUNE (9)	JULY (10)	AUGUST (11)	SEPTEMBER (12)	OCTOBER (13)	NOVEMBER (14)	DECEMBER (15)	AVERAGE (16)
ALL INDUSTRIES		X													
MANUFACTURING		X													
*Durable Goods		X													
Nondurable Goods		X													
*Ordnance.....(19)															
Food.....(20)															
Tobacco.....(21)															
Textile-Mill Products...(22)															
Apparel.....(23)															
*Lumber & Wood Products..(24)															
*Furniture & Fixtures.....(25)															
Paper & Allied Products..(26)															
Printing & Publishing...(27)															
Chemicals & Allied Prod. (28)															
Petroleum & Coal.....(29)															
Rubber Products.....(30)															
Leather.....(31)															
*Stone, Clay & Glass.....(32)															
*Primary Metal Industries..(33)															
*Fabricated Metal Prod...(34)															
*Machinery, exc. elec.....(35)															
*Electrical Machinery.....(36)															
*Transportation Equip.....(37)															
*Instruments, etc.....(38)															
Miscellaneous Mfg.....(39)															
MINING & QUARRYING.....															
CONTRACT CONSTRUCTION....															
TRANSPORTATION & PUBLIC UTIL.															
TRADE.....															
FINANCE, INS. & REAL ESTATE..															
SERVICE & MISCELLANEOUS...															
GOVERNMENT.....															

Form BLS - 1000 (Rev.)

FIGURE 7.4 (PAGE 1)

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ESTIMATED TOTAL EMPLOYMENT IN SELECTED NONMANUFACTURING INDUSTRIES, BY MONTH _____ (YEAR)

These estimates have been projected by monthly trends of
1. BLS Sample 3. ES-202
2. ES-203 4. Other
as identified by codes in column (3) and have been adjusted to _____ (BENCHMARK DATE) except where noted.

State of _____
BLS Region _____ (CITY)
Estimates prepared _____ (MONTH AND YEAR) by ☐ Region ☐ State

INDUSTRY (1)	PUB. CODE (2)	PROJECTION (3)	JANUARY (4)	FEBRUARY (5)	MARCH (6)	APRIL (7)	MAY (8)	JUNE (9)	JULY (10)	AUGUST (11)	SEPTEMBER (12)	OCTOBER (13)	NOVEMBER (14)	DECEMBER (15)	AVERAGE (16)
*MINING & QUARRYING (10-14)		X													
*Metal Mining (10)															
*Anthracite Coal (11)															
*Bituminous Coal (12)															
*Crude Pet. & Nat. Gas (13)															
*Nonmetal & Quarrying (14)															
*TRANSP. & PUB. UTIL. (40-46, 48-0)		X													
*Interstate R.R. (40)															
*Transp. except R.R. (41-45)		X													
Local Sys. & Busses (41)															
Trucking & Whsg. (42)															
Other Transportation (43)															
Water Transportation (44)															
Transp. Services (45)															
*Public Utilities (46, 48, 49)		X													
Communications (48)															
Utilities, El. & Gas (49)															
Local Utilities (49)															
*TRADE (50-59)		X													
*Wholesale (50, 51, 5[2])															
*Retail (53-59, 5[2])		X													
General Merchandise (53)															
Food & Liquor (54)															
Automotive (55)															
Apparel & Acc. (56)															
Retail, n.e.c. (57, 5[2])															
Eating & Drinking (58)															
Filling Stations (59)															

*These totals are required.
Form BLS 1220-A

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FIGURE 7.4 (PAGE 2)

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ESTIMATED TOTAL EMPLOYMENT IN SELECTED NONMANUFACTURING INDUSTRIES, BY MONTH _____ (YEAR)

These estimates have been projected by monthly trends of.
1. BLS Sample 3. ES-202
2. ES-203 4. Other
as identified by codes in column (3) and have been adjusted to _____ (BENCHMARK DATE) except where noted.

State of _____
BLS Region _____ (CITY)
Estimates prepared _____ (MONTH AND YEAR) by ☐ Region ☐ State

INDUSTRY (1)	PUB. CODE (2)	PROJECTION (3)	JANUARY (4)	FEBRUARY (5)	MARCH (6)	APRIL (7)	MAY (8)	JUNE (9)	JULY (10)	AUGUST (11)	SEPTEMBER (12)	OCTOBER (13)	NOVEMBER (14)	DECEMBER (15)	AVERAGE (16)
*FINANCE, INS. & REAL EST. (60-67)		X													
Banks (60)															
Sec. Dealers & Inv. B. (61)															
Finance, n.e.c. (62)															
Ins. Car. & Agents (63, 64)															
Real Estate (65)															
Comb. R.E. Ins. Law (66)															
Holding Co's., exc. R.E. (67)															
*SERVICE (70, 72-76, 78-83, 86)		X													
Hotels (70)															
Personal Services (72)															
Business Services n.e.c. (73)															
Employment Agencies (74)															
Auto Repair Garages (75)															
Misc. Repair Services (76)															
Motion Pictures (78)															
Amusement & Recreation (79)															
Medical & Health (80)															
Educational Inst. (82)															
Law & Other Prof. Ser. (81, 83)															
Nonprofit Org. (86)															
*MISCELLANEOUS (07-09, 99)		X													
Agricultural Services (07)															
Forestry (08)															
Fishing (09)															
Establishments, n.e.c. (99)															

*These totals are required.
Form BLS 1220-A

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FIGURE 7.5

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

ESTIMATED _____ EMPLOYMENT IN NONAGRICULTURAL INDUSTRIES, BY MONTH, FOR _____ (YEAR)

State of _____
BLS Region _____ (CITY)

These estimates have been projected, by monthly trends of
1. BLS Sample 3. ES-202
2. ES-203 4. Other
as identified by codes in column (3) and have been adjusted to _____ (BENCHMARK DATE)

Estimates prepared _____ (MONTH & YEAR) by ☐ Region ☐ State

INDUSTRY (1)	PUB. CODE (2)	PROJECTION (3)	JANUARY (4)	FEBRUARY (5)	MARCH (6)	APRIL (7)	MAY (8)	JUNE (9)	JULY (10)	AUGUST (11)	SEPTEMBER (12)	OCTOBER (13)	NOVEMBER (14)	DECEMBER (15)	AVERAGE (16)

Form BLS 1930-s (Revised)

FIGURE 7.6

ESTIMATED EMPLOYMENT IN MANUFACTURING INDUSTRIES

For submission of monthly manufacturing employment estimates. This form should be sent to Washington office by end of second month following current month to which the data pertain.

FOR _____ (CURRENT MONTH AND YEAR)

BLS Region _____
State _____

PLACE PERTINENT COMMENTS ON REVERSE SIDE

(These estimates have been adjusted to PRELIMINARY FINAL _____ Bench Mark) (QUARTER AND YEAR)

Prepared by:
Region ☐
State ☐

INDUSTRY and SIC Code	TOTAL ALL EMPLOYEES			PRODUCTION WORKERS			NONPRODUCTION WORKERS		
	Current Month 19	Previous Month 19	Cur. Month A year ago 19	Current Month 19	Previous Month 19	Cur. Month A year ago 19	Current Month 19	Previous Month 19	Cur. Month A year ago 19
	Month Year	Month Year	Month Year	Month Year	Month Year	Month Year	Month Year	Month Year	Month Year
ALL MANUFACTURING									
*DURABLE GOODS									
NONDURABLE GOODS									
*Ordnance (19)									
Food (20)									
Tobacco (21)									
Textile-mill Prod. (22)									
Apparel and Other (23)									
*Lumber and Wood Prod. (24)									
*Furniture and Fixtures (25)									
Paper and Allied Prod. (26)									
Printing and Publishing (27)									
Chemicals and Products (28)									
Petroleum and Coal (29)									
Rubber Products (30)									
Leather (31)									
*Stone, Clay and Glass (32)									
*Primary Metal Ind. (33)									
*Fabricated Metal Prod. (34)									
*Machinery, exc. Elec. (35)									
*Electrical Machinery (36)									
*Transportation Equip. (37)									
*Instruments, etc. (38)									
Miscellaneous (39)									

BLS 1932 (LS 47-716 Revised)

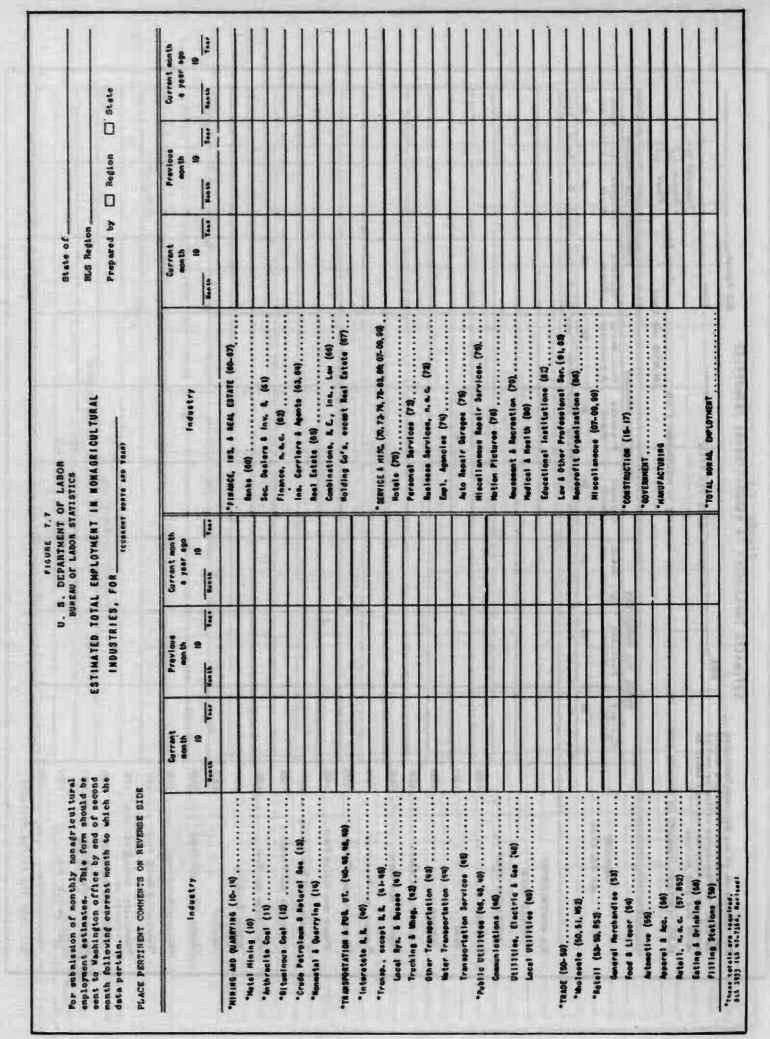

FIGURE 7.7

U. S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

State of _____

BLS Region _____

ESTIMATED TOTAL EMPLOYMENT IN NONAGRICULTURAL INDUSTRIES, FOR _____ (Treasury week end Year)

Prepared by ☐ Region ☐ State

For submission of monthly nonagricultural employment estimates. This form should be sent to Washington office by end of second month following current month to which the data pertain.

PLACE PERTINENT COMMENTS ON REVERSE SIDE

Industry	Current month ($) Month	Current month ($) Year	Previous month ($) Month	Previous month ($) Year	Current month a year ago ($) Month	Current month a year ago ($) Year
*MINING AND QUARRYING (10–14)						
*Metal Mining (10)						
*Anthracite Coal (11)						
*Bituminous Coal (12)						
*Crude Petroleum & Natural Gas (13)						
*Nonmetal & Quarrying (14)						
*TRANSPORTATION & PUB. UT. (40–49, 491–99)						
*Interstate R.R. (40)						
*Trans., except R.R. (41–48)						
Local Pgr. & Bus (42)						
Trucking & Whsg. (42)						
Other Transportation (44)						
Water Transportation (44)						
Transportation Services (48)						
*Public Utilities (49, 491–99)						
Communications (48)						
Utilities, Electric & Gas (49)						
Local Utilities (99)						
*TRADE (50–59)						
*Wholesale (50, 51, 152)						
*Retail (52–59, 252)						
General Merchandise (53)						
Food & Liquor (54)						
Automotive (55)						
Apparel & Acc. (56)						
Retail, n.e.c. (57, 252)						
Eating & Drinking (58)						
Filling Stations (59)						
*FINANCE, INS. & REAL ESTATE (60–67)						
Banks (60)						
Sec. Dealers & Inv. S. (61)						
Finance, n.e.c. (62)						
Ins. Carriers & Agents (63, 64)						
Real Estate (65)						
Combinations, H.C., Ins., Law (66)						
Holding Co's, except Real Estate (67)						
*SERVICES & MISC. (70, 72–76, 78–83, 89, 01–09, 88)						
Hotels (70)						
Personal Services (72)						
Business Services, n.e.c. (73)						
Govt. Agencies (74)						
Auto Repair Garages (75)						
Miscellaneous Repair Services (76)						
Motion Pictures (78)						
Amusement & Recreation (79)						
Medical & Health (80)						
Educational Institutions (82)						
Law & Other Professional Ser. (81, 88)						
Nonprofit Organizations (86)						
Miscellaneous (07–09, 89)						
*CONSTRUCTION (15–17)						
*GOVERNMENT						
*MANUFACTURING						
*TOTAL NONAG. EMPLOYMENT						

*Item totals are required; all other items optional.

SECTION 8

Publication Policy

8.1 GENERAL

8.1–1 Release of State Data a State Function

The present section on publication policy is included in the *Manual* in order to introduce some measure of uniformity by recommending certain steps that will aid in attaining this uniformity.

The primary release of State data will be a State function, while the BLS will release certain monthly, annual, and special summaries of State data.

8.2 ITEMS PUBLISHED

8.2–1 Production Worker Estimates Not Published

Publication should be restricted at first to estimates of total employment. Until such time as the hours and earnings data, by State, are available little can be gained by including production worker estimates in the monthly total employment publication. Moreover, the confusion that may arise through the presentation of two sets of employment figures is eliminated. When the hours and earnings data are released it will be necessary to have the related production worker estimates available for comparison either as a standard item of publication or to answer special requests.

8.2–2 Exceeding BLS Recommendations

The Contract State agencies are free to publish estimates in excess of BLS recommendations as they see fit. The more they follow the general standard of uniformity noted here, the more their material may be quoted or incorporated in more general releases with proper credit.

8.2–3 Uniformity of Presentation

For uniformity in tabular presentation it is recommended that data for current, last previous, and year ago month should be presented with the most current month listed first.

8.2–4 Percent Changes

Percentages of change may be computed for purposes of analysis but it is not recommended that they be presented as tabular data.

8.3 INDUSTRY DETAIL TO BE COMPILED

8.3–1 Minimum List

The essential requirement of the program is that an estimate of total employment in each State be compiled for employees in nonagricultural establishments, for each of the following industrial categories:

Employees in nonagricultural establishments.
Manufacturing (SIC groups 19–39):
  Durable.
  Nondurable.
  Ordnance and accessories (SIC group 19).
  Food and kindred products (SIC group 20).

8.3–1 Minimum List—Continued

Manufacturing—Continued
- Tobacco manufactures (SIC group 21).
- Textile mill products (SIC group 22).
- Apparel and other finished products made from fabrics and similar materials (SIC group 23).
- Lumber and wood products (except furniture) (SIC group 24).
- Furniture and fixtures (SIC group 25).
- Paper and allied products (SIC group 26).
- Printing, publishing, and allied industries (SIC group 27).
- Chemicals and allied products (SIC group 28).
- Products of petroleum and coal (SIC group 29).
- Rubber products (SIC group 30).
- Leather and leather products (SIC group 31).
- Stone, clay, and glass products (SIC group 32).
- Primary metal industries (SIC group 33).
- Fabricated metal products (except ordnance, machinery, and transportation equipment) (SIC group 34).
- Machinery (except electrical) (SIC group 35).
- Electrical machinery, equipment, and supplies (SIC group 36).
- Transportation equipment (SIC group 37).
- Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks (SIC group 38).
- Miscellaneous manufacturing industries (SIC group 39).

Mining (SSA groups 10–14):
- Metal mining (SSA group 10).
- Anthracite mining (SSA group 11).
- Bituminous and other soft-coal mining (SSA group 12).
- Crude-petroleum and natural-gas production (SSA group 13).
- Nonmetallic mining and quarrying (SSA group 14).

Contract construction (SSA groups 15–17).

Transportation and public utilities (SSA groups 40–49):
- Interstate railroads (SSA group 40).
- Transportation except railroads (SSA groups 41–45).
- Utilities (SSA groups 46, 48, 49).

Trade (SSA groups 50–59):
- Wholesale trade (SSA groups 50–51 and wholesale segment of 52).
- Retail trade, restaurants, and filling stations (SSA groups 53–59 and retail segment of 52).

Finance (SSA groups 60–69).

Service (SSA groups 70–76, 78–83, 86).

Miscellaneous (SSA groups 07–09, 99).

Federal, State, and local government:
- Federal.
- State and local.

BLS wishes to publish from Washington, for the country as a whole, estimates which are the actual sums of published and unpublished estimates prepared by the Contract State offices. To maintain uniformity from State to State, the divisions and industry groups listed above should be used for all States so that a United States total and a complete break-down by State may be published in the same table.

8.4 INDUSTRY DETAIL FOR PUBLICATION

8.4–1 Basic Principles

No definite rules can be given for deciding for which industries in a State the Contract State offices should publish estimates of employment. The following are important considerations to be used as a guide:

(a) USE OF SIC AND SSA INDUSTRIAL CLASSIFICATION GROUPINGS. SIC 1945 industrial classification groupings for manufacturing, and SSA 1942 groupings for nonmanufacturing industries should be used whenever possible. Totals by 2-digit group should be shown (with exceptions noted in (b) and (c)), and totals by 3- and 4-digit group are desirable, particularly for industries important in the State. To have good

8.4–1 Basic Principles—Continued

order and permit more accurate analysis of the data, the break-down of each group should be as exhaustive as accuracy permits; that is, the employment of the 3-digit groups which made up a 2-digit group should add to the 2-digit total. Three-digit industries from two different 2-digit groups, or 4-digit industries from two different 3-digit groups should not be combined.

(b) NO PUBLICATION REGARDING INDUSTRIES WITH LESS THAN 2,000 EMPLOYEES. Estimates should not be published for industry divisions or for 2-, 3-, or 4-digit groups in which employment is less than 2,000 persons. Exceptions may need to be made where the application of this rule would make impossible the publication of a separate estimate for another large industry. For example:

The mining division in a State employs 9,000 workers, of whom 7,800 are in the bituminous-coal industry. Since bituminous-coal mining is an important industry in the State, a separate estimate may be desired. Although the difference between employment in mining and employment in the bituminous-coal industry is only 1,200, this difference—employment in all other mining—may be published as an estimate. In this instance, particular attention must be paid to the reliability of the estimate of the difference.

It is recommended that industries formerly having more than 2,000 employees, but having undergone a substantial decrease so that employment is now less than 2,000, be combined in publication. The war expansion and postwar decrease exhibited by the aircraft and shipbuilding industries are instances where combinations may be necessary.

(c) NO PUBLICATION ALLOWING THE IDENTIFICATION OF AN INDIVIDUAL EMPLOYER. In no event may the figures for an individual employer be published. Ordinarily, if the sample for the industry includes three or more employers, the estimate may be published. However, an estimate which is dominated by a single employer should not be published. An employer comprising 75 percent of an industry is considered as "dominating" the industry, even if the industry has three or more employers.

This statement that an estimate may be published if the sample consists of three or more employers is intended to apply only in those cases where the sample is otherwise adequate. The adequacy of a given sample cannot be rigorously stated, since representativeness of samples of the same size may differ considerably. For the purpose of this program, in the interim period before a planned sample design is adopted, samples covering less than 20 percent of the employment in an industry or industry group should be considered inadequate for publication. In no sense does the satisfying of this requirement alone meet our immediate needs. Considerable discretion should be used and various other factors taken into account, such as (a) absolute size of population being sampled, particularly in terms of number of establishments, (b) absolute number of establishments in sample, (c) size of establishments in the sample, (d) representativeness of sample.

(d) ROUNDING OF PUBLISHED FIGURES. The industrial division totals should be rounded figures of the actual total for the division. The 2-digit estimates should be forced to add to the rounded totals. For manufacturing an additional forcing is necessary to obtain rounded totals for durable and nondurable goods groups. (See section 8.6 on rounding.)

Rounded industrial division totals should be added to derive a total for nonagricultural employment.

8.5 INDUSTRY COMBINATIONS FOR PUBLICATION

8.5–1 Need for Combinations

It is improbable that in each State each industry group listed in section 8.3–1 will be sufficiently large to justify publication of an estimate; also, in some instances, publication might reveal the identity of a large establishment; therefore, it will be necessary to make certain combinations of groups before estimates can be published.

8.5–2 Suggested Combinations in Manufacturing

Where it is desirable to show some detail within manufacturing, but where most of the 2-digit groups are too small to be published separately, the combinations listed are suggested, although it is not required that they be followed exactly. If these combinations cannot be made, groups which are of the same type may be combined. For example, if a State has neither the lumber nor the furniture industry but has the stone, clay, and glass industry, the estimate for stone, clay, and glass may be combined with the estimate for basic metals and the machinery industries. Do not combine an estimate for a durable-goods group with an estimate for a non-durable-goods group; e. g., transportation equipment should not be combined with food and kindred products.

Manufacturing Combinations

Durable goods groups:
- Basic metals and metal fabrication, except transportation equipment:
  - Primary metal industries; ordnance; fabricated metal products n. e. c.
  - Machinery; electrical machinery; professional, scientific, and controlling instruments, etc.
- Transportation equipment.
- Lumber; furniture; stone, clay, and glass products.

Nondurable goods groups:
- Food and kindred products.
- Textiles; apparel; leather.
- Paper; printing and publishing.
- Chemicals; products of petroleum and coal; rubber.
- Miscellaneous manufacturing industries; tobacco manufactures.

8.6 SIGNIFICANT DIGITS

8.6–1 Basic Policy

All publications should show data rounded to thousands or hundreds. Industries having fewer than 100,000 employees should be published in hundreds to show three significant digits whenever possible. Industries with 100,000 or more can be published in thousands unless it is desirable to have the total shown in hundreds to correspond to the smaller 2-digit industries.

8.6–2 Exceptions

(a) States are asked to consult with the Washington office if deviations from the above policies seem necessary.

(b) If, under special circumstances, industries with fewer than 2,000 employees are published,

(1) Show rounded to hundreds. This will result in publishing virtually constant figures each month.

(2) Show rounded to tens only after consultation with the Washington office. This practice is advised only where percentage changes are used in the release, to overcome unexplained differences between percentage changes from actual and from rounded figures.

8.7 MONTHLY STATE AND WASHINGTON RELEASES

8.7–1 Industrial Detail

The State releases should follow preferably the criteria outlined in section 8.4. For the present, the Washington release will continue to publish nonagricultural and all manufacturing totals furnished by the States. In the future the Washington office will attempt to publish estimates by industrial division, by State.

8.7–2 Period Covered

The monthly State releases should include estimates of total employment for the two current months and the current month a year ago. The first current month will be based on the preliminary tabulations available about the 15th of the first month after the date of reference. The second current month will be based on the

8.7–2 Period Covered—Continued

regular monthly tabulations. Figures for the third current month may be published if it is felt that the estimate based on the regular tabulation can be significantly improved by incorporating late reports and corrections.

The Washington office will not publish a preliminary figure in its monthly release. Therefore, only the second and third current months' data and information for the second current month a year ago will appear in the Washington publication. These arrangements will enable the contract State offices to have estimates in print 30 days prior to their release in Washington.

The Washington publication will be compiled from the monthly reports submitted on form BLS 1932 (for manufacturing) and on form BLS 1933 (for nonmanufacturing) by the Contract State offices.

8.7–3 Timing of State Releases

The goal is to issue a release of preliminary figures about the 20th of the month following the month of reference. With this timing, preliminary data will be published in 35 days after the date of reference, and final data in 65 days.

8.7–4 Copies for BLS

The States should send 10 copies of each release to the Washington office of BLS. They should be addressed to:

Chief, Branch of Employment Statistics,
U. S. Bureau of Labor Statistics,
Washington 25, D. C.

8.8 ANNUAL STATE AND WASHINGTON RELEASES

8.8–1 Industrial Detail

The annual release published by the Contract State office should be a recapitulation of the monthly releases showing the same industry detail, by industry, by month. The Washington annual release will be a recapitulation by industrial division, by State, by month.

8.8–2 Period Covered

In both Washington and contract State office releases, annual averages for all available years should be included. Monthly data should be shown for the years for which previously published data have been revised.

Example.—An annual release published in November 1947 would normally include annual averages for 1939, 1943–46, and monthly figures for 1946 and available months of 1947 (January to October).

To save issuing another release a few months later to incorporate monthly and average figures for 1947, spaces for the remaining months of 1947 and for the average could be designated when the release was cut. Therefore, the original release could easily be brought up to date.

8.8–3 Timing

The annual release will be prepared as soon as possible after new benchmarks have been established and estimates have been adjusted to the new benchmarks. This release will in one sense be two separate reports: one part will present final estimates for the preceding calendar year adjusted to the new benchmarks computed for that year; the other part will present necessary revisions for the elapsed months of the current year adjusted to the benchmarks of the previous year.

8.9 OTHER STATE AND WASHINGTON RELEASES

8.9–1 Perfecting Regular Program

In the more immediate stages of the State Program, it is felt that nearly all our efforts should be directed toward perfecting the regular program, rather than expending an appreciable part of our energies in preparing special publications.

8.9–2 Special Publications

If the requirement for a special publication does arise, an attempt to consolidate a number of related special requests should be made. A release of this kind should be reproduced in sufficient number of copies to answer future requests of both the field and Washington offices.

8.10 PUBLICATION OF INTERMEDIATE REVISIONS

8.10–1 Criteria

Publication of two sets of revisions have already been discussed in this section. These are (a) revision of data appearing in the monthly releases, and (b) revisions occasioned by the adjustments to annual benchmarks. Intermediate revisions between the publication of the monthly and the annual releases, except in unusual circumstances, should not be necessary. Although it is not possible to set absolute or percentage terms as a measure for the necessity of revision, adherence to the following rules may be used as a guide. Do not make a revision unless:

(a) It is certain that the adjustment is being made to substantially better data than originally used.

(b) The industry is of economic importance in the State.

(c) The revision will make a significant difference in the published total and not just a segment industry. See section 4.5–7, volume II, for a rule of thumb in deciding what is a significant difference.

8.10–2 Washington To Be Notified

If it is absolutely necessary to revise previously published data, please transmit by memorandum to the BLS Washington office a notice of the change and two copies of the publication in which the change is announced.

8.10–3 Presentation in Monthly Release

These revised data should be included in the monthly press release in footnote form so that persons desiring comparable data will find them accessible.

8.11 RECONCILIATION BETWEEN STATE AND NATIONAL SERIES

8.11–1 General

In the early stages of the program some differences are expected to occur between the U S and the sum of the States totals. We intend to use the evidence of each program to check against the other program, to minimize the error in both and reconcile them as closely as possible. When deviations between the two programs are noted, the State offices will be asked to participate in the reconciliation program. It is not expected, however, that either the sum of the State figures or the National total will be forced to an exact accounting balance.

SECTION 9

Construction

As of this date, instructions covering the preparation of estimates in the contract construction industries are contained in a separate document issued by the Bureau of Labor Statistics and entitled *Measuring Employment in the Contract Construction Industry Within a State.* This document subsequently will be revised and reissued as section 9, volume II, of the *Manual.*

SECTION 10

Government Employment

10.1 DEFINITIONS

10.1–1 Establishment

Although the definition of an establishment is the same for governmental as for private employment, government data are not collected from individual establishments. Instead, they are collected from individual State and local governments—States, cities, townships, etc.—and from individual Federal agencies or bureaus within an agency, most of which conduct their work in numerous establishments.

In dealing with governmental employment, therefore, we shall refer mainly to "reporting agencies or reporting units" but references to "establishments" (such as to "establishments of the War Department") will use the term "establishments" according to the definition given in section 3.1–1, volume I.

10.1–2 Reporting Agency or Unit

(a) FEDERAL. The three main civilian branches of the Federal Government are the executive, legislative, and judicial. In addition, there are Government corporations many of which pay the salaries of their employees out of revenues from corporation operations. Although corporation employees are not regular Federal employees, they are not wholly private employees either, and they are included by BLS in the government estimates.

The reporting unit in the executive branch is sometimes the agency (e. g., State Department, Federal Communications Commission, etc.) and sometimes the various bureaus which the agency embraces (e. g., Labor Department: Women's Bureau, Bureau of Labor Statistics, etc.), depending upon the method of record keeping employed. The legislative and judicial branches have several reporting units each: the Senate, House of Representatives, Botanic Gardens, etc. Most of the Government corporations now constitute reporting units in the executive branch. The only ones included in the Government corporation group are: The Federal Reserve banks, mixed-ownership banks of the Farm Credit Administration, and the Panama Railroad Company.

(b) STATE AND LOCAL. The types of governments covered in the State and local group are State governments, counties, cities, townships, and independent, special-purpose agencies, such as school districts and park districts. School and nonschool employees are reported separately. For nonschool employment the reporting unit is usually the entire government unit (State, city, county, etc.) exclusive of special districts serving the area which report separately. Occasionally, however, the individual departments of a State government, city, etc., constitute separate reporting units. For school employment, the reporting unit is the school system; it may be a school district, a city, county, township, State government or individual State-operated school, depending upon the type of school organization in the State and community.

10.1–3 Employee

(a) GENERAL DEFINITION. In general, a government employee is a person who was with

10.1–3 Employee—Continued

the Federal Government in pay status on the last day of the preceding month or on the pay roll with pay of a State and local government for the pay period ending on or just before the last day of the current month.

(b) NOMINAL EMPLOYEES EXCLUDED. Persons who do not receive substantial amounts of compensation or who probably have other major jobs in which they normally would appear in the nonagricultural employment series are excluded from the government segment to the extent that their number is known. For the Federal Government, those excluded are persons having $1-a-month-or-year appointments, fourth-class postmasters, and substitute rural mail carriers. From the State and local government segment are excluded persons, found almost exclusively in cities of fewer than 5,000 and townships of fewer than 10,000 inhabitants, who spend very little time at their jobs and are paid only nominal amounts of money (for example, council members and firemen who are paid per meeting or per fire attended); in the government series revised March 1947 there were, roughly, 105,000 persons of this type who were excluded.

(c) WORK-RELIEF AND MILITARY PERSONNEL EXCLUDED. Regular employees of Federal, State, or local governments who administer work-relief programs are included in government employment. Persons who are certified to work relief jobs (WPA, CCC, and NYA, etc.), however, as well as persons on active duty with the armed forces, are not considered employees and are excluded from both government employment and total nonagricultural employment. Separate national series for these groups are available, however.

(d) FORCE-ACCOUNT CONSTRUCTION EMPLOYMENT INCLUDED. Data on Federal force-account employees, that is, construction workers who are hired directly by the Federal Government as a separate work force for a particular project and whose employment will be terminated at the close of the project, are collected along with data for other Federal employees and in the series revised March 1947 are included in government, instead of in construction, as was previously done. Force-account construction employment of State and local government has always been included in government.

(e) REGULAR SCHOOL TEACHERS INCLUDED DURING VACATIONS. The definition of State and local government employment as the number of persons on the pay roll with pay is unsatisfactory for school employment because of the long, sometimes unpaid, summer vacations customarily given to most school employees. One school system may spread the annual salaries of its regular teachers over nine months, while other systems may spread them over 10, 11, or 12 months. If employment is defined in terms of the number of persons on the pay roll, teachers who do not receive salary payments during vacation periods will be considered "unemployed" during unpaid vacations while the teachers who receive pay during vacations will be considered "employed." Obviously this gives a false picture. BLS practice is to consider regular day-school teachers employed throughout vacation periods whether or not they receive pay for them (and whether or not they are working or seeking work elsewhere). This practice may result in counting some persons twice during these long vacation periods, particularly during the war when job opportunities were readily available, but it seems the preferable alternative until actual data on the employment of teachers during vacation periods are available. Practices also differ with regard to the number of months in which payments are made to school principals. BLS practice is to include them in the estimates in all months, just as in the case of regular teachers.

Night and special school teachers, substitute teachers, janitors, maintenance employees, student helpers, and others present a different problem. They ordinarily are paid only for time worked and they do not have the tenure which regular day-school teachers and principals do. Therefore they have a greater incentive than do regular teachers to find other employment during unpaid vacation periods and BLS practice is to include them only in periods when they receive pay.

10.2 GENERAL CHARACTERISTICS OF GOVERNMENT EMPLOYMENT

10.2–1 Seasonality

In normal times the Federal employment series shows two peaks caused by seasonal factors; one is a slight increase in the summer months, which is mainly the result of increased operations of some of the Bureaus of the Agriculture and Interior Departments, and the other is a sharp peak in the month of December caused by the hiring of large numbers of temporary postal workers to handle the large volume of Christmas mailings. During the war, however, the strong upward and downward movements accompanying the varying wartime demands obliterated the summer increases, leaving only the December peak.

In normal times the seasonal pattern of State and local governmental employment is the result of two opposing tendencies. Educational employment decreases in the summer months because of unpaid vacations to substitute and special school teachers, nurses, doctors, janitors, etc.,[1] while nonschool employment is at a peak during the spring, summer, and fall months, mainly because of increased activity on the construction and maintenance of streets and highways, and on recreation, conservation, and agricultural projects. During the war period, essentially the same seasonal tendencies were in operation but because many colleges and universities used an accelerated schedule and because part-time and temporary workers, as well as road and street materials, were hard to obtain, the magnitude of the changes owing to seasonal factors was considerably reduced. The range of seasonal variation was larger in the school segment of State and local governmental employment than in the nonschool segment, both before and during the war, and, therefore, the total State and local governmental employment series showed somewhat of a decrease during the summer months.

During the war the December peak in postal employment was marked enough to be seen in the total government series, but the smaller seasonal changes in the State and local segment were obscured in the total by the large upward and downward currents in Federal employment.

[1] In many of the southern States, vacations occur in the wintertime for the purpose of permitting the pupils to help with the harvesting and processing of agricultural crops destined for northern markets. Employment changes resulting from these winter vacations are not great enough to affect the national totals to any great extent, however, because most of the employees affected are regular teachers who are considered employed during vacation months.

10.2–2 Geographic Movements

Shifts in the State distribution of State and local governmental employment may result from the differential impact of social and economic factors which necessitate governmental action, or they may result from changes in the governmental organization or functions of particular units within the States. For example, recurrent floods may induce a State or group of States to build a levee; an economic depression may hit one region more severely than others and necessitate varying amounts of governmental relief services; urbanization and inmigration, which necessitate higher governmental employment, may be taking place at different rates in the various States; a State government may start the operation of an alcoholic beverage monopoly system; or a city or group of cities may assume the operation of a public utility.

Prior to the war, the State distribution of Federal employment was relatively stable, but during the war period radical and unpredictable month-to-month shifts occurred. These resulted from (1) the decentralization of a number of the agencies, bureaus, or divisions outside the Washington, D. C., area, (2) the creation of many war-emergency agencies, and (3) at first, the opening up and expansion, and then the contraction or closing of War and Navy Department camps and production and storage facilities.

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10.3 PROCEDURES FOR NATIONAL AND STATE ESTIMATES

10.3–1 Sources of Reported Data

(a) FEDERAL. BLS receives monthly employment reports from the various divisions of the legislative and judicial branches and Federal Reserve banks, and quarterly or semiannual employment reports from the Farm Credit banks (employment of the Farm Credit banks is interpolated on a straight-line basis for months between reports). The Civil Service Commission receives monthly employment reports from each agency in the executive branch of the Federal Government and from Government corporations other than the Federal Reserve banks and Farm Credit mixed-ownership banks.

The employment data collected by BLS represents the number of persons on the pay roll with pay during the last pay period of the month and the employment collected by the Civil Service Commission represents all regular full- and part-time employees in pay status as of the last day of the month plus irregularly employed (called WAE or "when actually employed") personnel who were paid during the month. In BLS publications and State estimates, Federal employment for the periods described is published as data for the following month.[2]

(b) STATE AND LOCAL. Employment and pay rolls of State and local governments were scheduled on a sample basis monthly from 1929 through 1939 by the BLS State, County, and Municipal Survey (later referred to as the SCM Survey). The survey, starting in 1939, was done historically rather than currently and because precedence for employment and funds was given to the prosecution of the war, national and State estimates were achieved for this period only on an annual basis. Scheduled employment represented the number of persons on the pay roll with pay during all pay periods ending within the month, less persons (such as snow shovellers) hired for fewer than three days during the month, less nominal employees[3] of the smaller governmental units who received less than $8 a month. Monthly employment was secured by averaging the employment reported for the various pay periods ending during the month.

In January 1940, the Government's Division of the Bureau of the Census started to collect quarterly from the 48 States and a sample of local governments their employment and pay rolls in nonschool functions, from which national estimates were made each quarter. State estimates were made intermittently (January 1941, January 1942, April 1944, April 1945) until in April 1946 the State estimates, too, were put on a quarterly basis. Budget limitations in the 1947–48 fiscal year, however, now prevent the making of State estimates more frequently than once a year (October). In April 1946 the Bureau of the Census Government's Division started to collect school as well as nonschool employment and pay rolls from which national and State estimates were made for the same periods as for the nonschool segment.[4] Using these quarterly figures from the Bureau of the Census, BLS made monthly estimates in accordance with procedures described in section 10.3–3 (b).

[2] The reason for this is the speed with which Federal employment would have to be collected and tabulated in order to combine it as of the end of the month with private employment referring to the week ending nearest the 15th of the month in time to meet BLS publication schedules. The extra employment of the Post Office Department taken on at Christmas time, which is not now scheduled by the Civil Service Commission, is added to BLS data for the month of December.

[3] See 10.1–3 (b) and 10.3–2 (b) for a fuller discussion of nominal employment.

[4] Between 1939, the last year covered by the State, county, and municipal survey, and April 1946, the only reports of school employment were those covering administrative and teaching staff of elementary and secondary schools and total staff of institutions of higher education, which were secured by the U. S. Office of Education biennially.

Employment is defined on the census schedule as the number of persons on the pay roll with pay during the pay period ending on or just before the last day of the calendar month. In addition to the fact that BLS departs from this definition to include in the summer months not merely teachers who are paid then but all regular teachers, it should be noted that the census estimates are completed from four to six months after date of reference, and therefore BLS initially makes forecasts, using the above definition, and then revises the forecasts once a year, in March or April, by which time the Census Bureau estimates for the preceding calendar year usually are available.

10.3–2 Adjustments to Reported Data by BLS

(a) FEDERAL. Although the BLS uses employment figures for the executive branch of the Federal Government collected by the Civil Service Commission it makes the following adjustments to the reported data in order to make them consistent with BLS definitions: (1) BLS excludes seamen and trainees who are hired and paid by private steamship companies having contracts with the Maritime Commission, whom the Civil Service Commission has included beginning January 1947; (2) BLS excludes substitute rural mail carriers who have been included by the Civil Service Commission since September 1945; (3) BLS includes in December the additional postal employment necessitated by the large Christmas business, which is excluded from published Civil Service Commission figures starting December 1942; (4) BLS includes an upward adjustment to Post Office Department employment prior to December 1943 to convert temporary substitute employees from a full-time equivalent to a name-count basis, the latter being the basis on which data for subsequent months have been reported; this adjustment has not yet been made in published figures of the Civil Service Commission; (5) BLS deducted from Post Office Department employment reported between October 1945 and December 1946 a progressively larger figure each month totaling about 37,000 in November 1946, representing a correction for over-reporting of part-time employees who, though gradually replaced by full-time veterans and former war-production workers during this period, were not subtracted from the employment reported; the number of employees so subtracted was proportionate to the cumulative total of persons returned to civilian life from the armed forces during those months; the Civil Service Commission has not made this revision in its employment series; (6) BLS excludes the Panama Railroad Company from the executive branch, where it has been included by the Civil Service Commission since June 1943, and adds it to Government corporations where it was included by the Civil Service Commission, prior to June 1943; (7) certain revisions besides those mentioned above have been incorporated in BLS figures but not in Civil Service Commission figures; (8) employment published by the Civil Service Commission as of the last day of the month is published by BLS as data for the following month.

(b) STATE AND LOCAL. From the figures on employment of State and local governments furnished quarterly by the Bureau of the Census, BLS deducts nominal employees.[5] The number of such employees which was deducted from the BLS series revised March 1947 was ascertained by a tabulation of total and permanent part-time employment and total pay rolls by nonschool function[6] for each city of fewer than 5,000 and each township of fewer than 10,000 inhabitants in the census sample in April 1944. Tabulations of the number of employees receiving only a few dollars during that month were made by State. From these, estimated totals were derived using the same blow-up factors as those used by the Bureau of the Census in making the original total estimates. For example:

Iowa:

Employment of cities of 2,500–5,000 inhabitants

Reported number:	
Total	500
Nominal	50
Estimated number:	
Total	8,000
Nominal	(?)

$\frac{50}{500} \times 2{,}000 = 800$ Estimated number of nominal employees.

The resulting estimated total number of nominal employees was subtracted as a constant from the census series each quarter.[7]

[5] See definition of employee, sec. 10.1–3.

[6] Nominal employees are not apt to be found in large numbers in schools except in institutions of higher education where students often work part time. Detailed tabulations were made of student employees in these institutions in April 1946, the first period for which school employment estimates were made by the Bureau of the Census, and those who received less than an average of $10 during that month were deducted from the census estimate for that and for succeeding quarters.

[7] In the unrevised BLS series, the number of nominal employees subtracted was estimated from tabulations of only those functions in which nominal employees are most numerous and the number was made to vary from quarter to quarter in proportion to variations in the estimated total employment of State and local governments.

10.3–2 Adjustments to Reported Data by BLS—Continued

For the nonschool segment of State and local governmental employment, comparisons of the census estimates were made by State for periods when State estimates were secured [8] by level of government—States, cities, counties, townships, and special districts. Occasionally where large erratic fluctuations could not be explained in terms other than the change in sample in April 1944, or by the change in the classification of certain types of governmental units effected by the new sample,[9] BLS made an arbitrary change in the census estimate to achieve a smoother picture by level of government and consequently in the State and national totals.[10]

For the school segment, employment at each institution of higher education in the new census survey starting April 1946 was reconciled with employment reported for earlier years to the U. S. Office of Education which had formed the basis of former BLS estimates from 1940 on. The reconciliation resulted in some adjustments of census data, particularly where student help received only nominal pay or where a judgment estimate [11] of the Bureau of the Census should have been changed in the light of later reports; and in some adjustments of Office of Education data, such as where student help receiving substantial amounts of pay obviously had been omitted or where agricultural extension workers or State university hospital workers obviously had been included, with resultant duplication with the nonschool segment.

No similar reconciliation by school system was possible for elementary and secondary school employment because the previously used Office of Education figures were available only as State totals. A reconciliation was made of these State totals, however, and, as a result, several adjustments were made in the Office of Education levels.

Inasmuch as the Office of Education figures for elementary and secondary schools, on which BLS had to rely for the period between the last State, County, and Municipal Survey estimate for 1939 and the first census estimate for April 1946, covered only administrative and instructional staff, an estimate had to be supplied for other types of employees. In the series revised March 1947 this group was estimated in accordance with the ratio of other employees to permanent full-time instructional staff in the census estimate for April 1946. Previous BLS estimates had used the ratio of other employees to administrative and instructional staff in 1939 in cities of 100,000 or more inhabitants for which published State, County, and Municipal Survey information was available.

10.3–3 Derivation of Monthly Estimates From Levels Reported Less Frequently

(a) NATIONAL TOTALS. Since July 1943, employment in continental United States [12] and in the Washington, D. C., metropolitan area has been reported monthly by all Federal agencies except the Farm Credit banks which report quarterly or semiannually. Farm Credit bank employment for the months between reports is estimated first by judgment projections which are revised when the next report is received by interpolating on a straight-line basis between the reported figures. From July 1943 through December 1946, employment outside continental United States was reported by all Federal agencies quarterly and employment for months between was estimated by straight-line interpolation. Beginning December 1946, employment outside continental United States has been reported monthly by all Federal agencies except Farm Credit banks which reported quarterly or semiannually.

Prior to July 1943, combined figures for continental employment and employment outside the United States were reported monthly by all Federal agencies in the executive branch. In certain periods (January of 1937, 1938, 1939, and 1940, and July of 1941) employment outside continental United States also was reported. Estimates of employment outside the country for months between these reporting dates were secured by straight-line interpolation. These then were subtracted from the reported data for all areas to secure estimates for the continental area.

Prior to July 1943, Government corporations reported employment semiannually as of June 30 and December 31, by all areas, continental United States, and Washington, D. C. Data for the intervening months were secured by straight-line interpolation.

Although total employment for the judicial branch of the Federal Government has been reported monthly since November 1933, employment in the judicial branch outside continental United States was reported only for December 1938, until 1945, when a monthly figure was first obtained.

State and local governmental employment is subject to wide seasonal variation and reports on it are received only quarterly. To secure estimates for months between quarters, seasonal indexes for the school and nonschool segments were developed from preliminary monthly estimates for 1937–39 based on State, county, and municipal survey reported data.

The nonschool seasonal index was applied as follows: When levels for the beginning and end of the quarter were known, seasonality was first removed to secure trend only. The "trend" points were then plotted on a graph and joined by freehand method and the monthly points so determined were then multiplied by the seasonal index to reintroduce seasonality.

From 1940 through 1945 education employment was reported only biennially. The same general method used to estimate nonschool employment was used to convert these infrequently reported education figures into monthly estimates, but a variation was introduced for 1939 when the final SCM figure represented an average for the year rather than the level for a particular month. In that case, the average school employment for 1938 and 1939 were used for plotting purposes as the trend values for December 1938 and December 1939 respectively. These were joined by freehand method, the values of the resulting monthly points were read from the graph and multiplied by the seasonal indexes for corresponding months, etc., as in the case of nonschool employment. The resulting figures were adjusted, however, to the SCM average employment for the year.

This method of estimating monthly figures from less frequent reports assumes that estimates based on reported figures are available for the beginning and end of some period and that the problem is to estimate data for the intervening months. Where reported data are available for one quarterly month but not for the next and estimates are desired for one or more months following the last reported month, such as where estimates are desired for current months, the procedure is to project as carefully as possible, on the basis of all known facts and tendencies, a figure for the next quarterly month for which a report eventually will be received, and then to follow the method outlined above to secure estimates for the intervening months. When the actual figure is received for the next reporting period, a revision of the projected monthly figure will be necessary except in

[8] State estimates of nonschool State and local governmental employment were made by the Bureau of the Census for January 1941, January 1942, April 1944, April 1945, quarterly from April 1946 through April 1947, and thereafter annually in October.

[9] The new nonschool State and local government sample drawn in April 1944 made the following classification changes: New England towns were classified with townships (instead of with cities and villages as previously); urban townships in New York, New Jersey, and Pennsylvania were classified with townships (instead of with cities); the employment of eight counties (five in New York City, and one each in New Orleans, Boston, and Philadelphia) was combined with that for the overlying cities; Arlington County, Va., was classified as a county (instead of a city); and each special district was classified as such (and not as previously with the basic governmental unit, such as a city or county, with which it was coextensive).

[10] Prior to April 1944, judgment estimates were made by the Bureau of the Census for nonreporting units so that the same blow-up factors could be used each period for each estimating group. Beginning April 1944, however, no judgment estimates were made for nonreporters, but the blow-up factors were changed each period in accordance with the weights of the reporting units. To illustrate with a hypothetical case: In a universe of 10 units of equal weight, if 5 units report, the blow-up factor is 2; if 2 units report, the blow-up factor is 5; and so on. In some cases the assumption that the employment of governmental units varies in direct proportion to the population of the units within a type and size group breaks down and the system of changing blow-up factors according to the weights of the reporters therefore sometimes produces estimates which are out of line with estimates in adjacent periods.

[11] Although it was stated in footnote 10 that starting April 1944, the Bureau of the Census ceased using judgment estimates, that referred only to the nonschool employment estimates. No blow-ups are used for institutions of higher education and therefore judgment estimates must be made for nonreporters.

[12] Continental United States covers the 48 States and the District of Columbia.

10.3–3 Derivation of Monthly Estimates From Levels Reported Less Frequently—Continued

the rare case of a coincidence of the forecast and the estimate based on reported data.

(b) STATE ESTIMATES. Employment reports or estimates based on survey reports have been available less frequently for individual States than for the country as a whole for both the Federal and State and local segments.[12] The way in which the reported or estimated national totals were distributed by States is the same for both segments and is as follows:

The percentage distribution of employment by State for each period for which figures were available by State constitutes a "State pattern." A straight-line interpolation was made between these percentages for each State for each month between the patterns. The resulting interpolated percentages were totaled for the 48 States by month and adjusted to a total of 100. The percentages were then multiplied by the employment total for the 48 States to secure the estimated employment by State. An example is given in the adjoining column.

This method assumes, of course, that the results of a State survey are available for two periods and that the problem is to develop a State distribution for the months between. If the problem is to estimate for months after the last available State survey, employment is distributed by State each month in accordance with the last known pattern. This is corrected either at the close of the quarter or the year as is described in section 10.4–4.

[12] Inasmuch as Federal and District Government employment in Washington, D. C., is reported to BLS monthly, this statement and the estimating method subsequently described refer only to the 48 States.

State	Percent distribution of education employment of State and local governments			
	Based on actual employment	Interpolated percentages		Based on actual employment
	January	February	March	April
48 States, total	100.00	100.00	100.00	100.00
Alabama	2.17	2.17	2.17	2.17
Arizona	.56	.56	.57	.57
Arkansas	1.44	1.44	1.45	1.45
California	6.76	6.78	6.79	6.81
Colorado	1.06	1.06	1.06	1.06
Connecticut	1.15	1.15	1.14	1.14
[Etc.]				

The components from which State estimates are built up and the present frequency of the State surveys for each are given below:

Federal	
Executive:	
Army and Air Force Departments.	Quarterly: January, April, July, and October.
Navy Department	Monthly.
Other defense agencies	Annually: January.
Post Office Department	Do.
All other agencies	Do.
Legislative	Monthly.
Judicial	One-time: January 1939.[1]
Government corporations:	
Federal Reserve banks	Monthly.
Farm Credit banks	Semiannually: January and July.
Panama R. R. Company	Annually: January.
State and local	
Nonschool:	
State governments	Annually: October.
Local governments	Do.
Education, total	Do.

[1] Inasmuch as judicial employment does not exceed several hundred in any of the States, it has not been deemed worthwhile to make a new State survey.

10.4 STATE ESTIMATES AVAILABLE FOR PUBLICATION

10.4–1 Detail Available

(a) FOR ANALYSIS. A list of all the items by which the government employment estimates by State are compiled appears in section 10.3–3 (b). Some of the items are not significant for analysis, however, and, therefore, a grouping is made before data are transmitted to State cooperating agencies. The form in which data, rounded to hundreds, are transmitted is shown below:

BRANCH AND AGENCY GROUP

Total government:
- Federal:
  - Defense agencies.
  - Post Office Department.
  - Other agencies and branches.
- State and local:
  - Education.
  - Other.

The subgroups are forced to add to the subgroup totals, and the subgroup totals are, in turn, forced to add to the government total.

(b) FOR PUBLICATION. The items which may be published are: (1) Total government, (2) total Federal, and (3) total State and local. The other items are furnished merely for use in analyzing the movements in the totals. Reference may be made in the text to the direction, but not the amount, of change in the subgroups by name. For example, a statement such as "The increase in Federal employment occurred mainly in the defense agencies," would be permissible.

10.4–2 Timing of Current Estimates

Current estimates are available between the 10th and 15th of the month following the one for which they are used and are mailed to the States promptly. Upon request, total and Federal government estimates are wired as soon as they are available.

10.4–3 Estimates for Previous Periods

Upon request, monthly estimates from January 1943 to date will be made available to the Contract States.

10.4–4 Frequency of Revision

(a) ANNUAL OVER-ALL REVISIONS. In the spring of each year, an over-all revision is made in the data for the preceding calendar year. The purpose of the revision is to take account of new survey materials that have become available since the original estimates were made. (See sec. 10.3–3 (b).)

Revised monthly employment estimates then are furnished to the Contract State agencies for (1) total government, (2) total Federal, and (3) total State and local. Upon request, the revised monthly data for the subgroups will also be made available.

(b) INTERIM SUBGROUP REVISIONS. Ordinarily, interim revisions are made only for the defense-agencies subgroup. The Army and Air Force Departments, which are included in this subgroup, issue a report of their employment by State once each quarter, upon which BLS then bases its estimates for the ensuing quarter. In States where the new report makes a substantial change or a change in direction from the estimates previously furnished to the State agencies, a revised estimate is furnished for the preceding month for (1) defense agencies, (2) total Federal, and (3) total government.

10.5 DEVELOPMENT OF GOVERNMENT ESTIMATES IN THE STATES

10.5–1 Need for Development

Since the beginning of the war, the War Department (now split into the Army and Air Force Departments) and the Navy Department have dominated the Federal employment picture. They have been the chief cause of movements of Federal employment in the various States, but also they have been the agencies for which we have had most frequent reports by location. The Army and Air Force Departments have furnished such reports to us quarterly all during the war, while the Navy Department furnished such reports quarterly until May 1944 and monthly since then. Employment in other Federal departments and agencies is more stable and does not distort our preliminary employment estimates if reported only annually. No need, therefore, exists for the development of State estimates of Federal employment on the part of the Contract States.

The State and local government employment estimates by State, however, at best have been available only quarterly (for some periods only annually) and with a lag of 4 to 6 months after the month of reference. This means that the State surveys can be utilized only at the time of the annual revision and that initial current estimates must be extrapolated. In some States there may be either already in operation or planned a system which will yield for segments of State and local government better estimates of employment than can be provided by the above method of extrapolation. If the local data are better, they should of course be used. There are many pitfalls along the route to good government estimates, however, and for this reason, the Contract State is requested to discuss the problem in detail with the Washington office of BLS before substituting local data for those supplied by BLS.

10.5–2 Technical Aids Available

BLS stands ready to assist the States in developing monthly surveys of State and local government employment by making available the experience gained through the State, County, and Municipal Surveys (covering the period 1929–39) and by making proper clearances with the Bureau of the Census and arranging to obtain from Census the technical assistance that it is in a position to give.

Below is a partial list of the pertinent technical aids in this field which BLS headquarters can furnish upon request to a Contract State, contemplating collection of data locally:

- List of units in present Census Bureau sample.
- Detailed statement on Census Bureau's method of estimating.
- Detailed statement on method of estimating used in State, County, and Municipal Survey (SCM).
- Photostats of actual Census Bureau schedules.
- Copies of blank schedules and definitions used by Census Bureau and in SCM survey.
- Copies of tabulating and estimating forms used by Census Bureau and in SCM survey.
- List and description of items the definitions should cover so as to include or exclude the items as desired (e. g., nominal employees, "employees" on service contract, officials paid through retention of fees, school teachers when on unpaid vacations, etc.).

SECTION 11

Industries Requiring Special Treatment

11.1 GENERAL

11.1–1 Rules Flexible

Rules governing the preparation of employment estimates in industries requiring special treatment as presented in this Section of the *Manual* are not to be construed as final or inflexible. They merely comprise the best available methods that are known at present to the Washington staff for handling many of the problems in preparing estimates (1) for industries not covered or only partially covered by the Social Security Act and State UC laws and not covered by BLS; (2) for industries covered by UC but not covered or inadequately covered by the BLS sample; and (3) for some of the industries covered by both UC and the BLS sample. Improved methods will be recommended, industry by industry, as soon as they can be developed. In any State in which locally available data make possible for one of the industries discussed in this section estimates which the State believes to be superior to the estimates derived by these procedures, the State data should by all means be used. Please advise the BLS Washington office of the variation in order that a successful technique in one State may be passed on to other States.

11.2 INDUSTRIES NOT COVERED OR PARTIALLY COVERED BY UC AND NOT COVERED BY BLS

11.2–1

Procedures for preparing employment estimates for this group of industries are discussed below.

(a) INTERSTATE RAILROADS (SSA 40). This major industry group includes employment in class I railway establishments, Railway Express and Pullman companies, class II and III railway establishments, and electric railways. All these establishments are subject to the provisions of the Railroad Retirement and Railroad Unemployment Insurance Acts. (Prior to July 1, 1939, employees in this industry were covered by UC legislation.)

(1) *Class I Railways, Railway Express Agency and the Pullman Company*

(i) *Benchmarks.* The Washington office has provided the following employment benchmarks, by State: number of employees receiving pay in July 1940 for each class I steam railway; number of employees at the middle of September 1945 and at the middle of July 1947 for each class I steam railway, for each class I switching and terminal company, and for the Railway Express Agency and the Pullman Co. These benchmark data cover all groups of railroad employment, including railway repair shop employees. The benchmarks are based on reports of individual establishments to the Association of the American Railroads (except the Railway Express Agency and the Pullman Co. from which organizations the BLS receives benchmark reports directly), and to the Interstate Commerce Commission. The distribution of employees by State was tabulated by each establishment on the basis of pay delivery points. The Washington office secures new benchmarks for this industry about every 2 years, or more frequently when sizeable shifts in economic activity occur.

11.2–1 Continued

(ii) *Current Estimates.* The Washington office furnishes the States with monthly national employment figures reported by class I steam railways, class I switching and terminal companies, the Railway Express Agency, and the Pullman Company to the Interstate Commerce Commission. The States then compute monthly estimates of employment in these segments of the railroad industry on the basis of the July 1947 pattern. One permissible simplification of this procedure is that the employment figures for railroads which had 50 or fewer employees in a State in the benchmark month, July 1947, can be carried as constants. These firms are usually railroads which do not operate in the State, but which have freight and passenger agencies in the principal cities. The percentage of total line employment of the railroad in the State is generally so small that total employment would have to undergo a very marked change to produce a difference of even one employee in the State.

(2) *Class II and III Railway Establishments and Electric Railways.*

(i) *Benchmarks.* The Washington office furnished the States with the estimated average number of employees for the years 1944 and 1946 on class II and III steam railways, in class II and III switching and terminal companies and electric railways (regulated by the ICC) for each State. These data cover all groups of railroad employment, including railway repair shop employees. Since no employment data for these establishments were reported with State break-downs, the distribution of benchmarks, by State, for these segments of the railroad industry was estimated by the BLS on the basis of miles of road operated by each establishment, exclusive of mileage used under trackage rights in each State. It should be noted that this method may not give an accurate estimate of employment in each State, especially in the case of switching and terminal companies operating in more than one State. Therefore, if a particular State has locally available information which, in the State's judgment will lead to better estimates for the State, that information should be used.

(ii) *Current Estimates.* The 1946 employment benchmark data for class II and III railway establishments and electric railways may be used as constants in estimating the total monthly employment for the Interstate Railroads. In the absence of monthly employment information the general policy of the BLS is not to carry employment data as constants but to adjust them on the basis of changes of certain other related series which vary from month to month. Deviation from this policy is recommended in the case of class II and III railways because (a) it is believed that class II and III railway employment and class I railway employment—the most nearly related series in subject matter—do not move together, and (b) class II and III employment is such a small part of the total that month-to-month variations in the class II and III estimates have a negligible effect on total estimates.

(b) WATER TRANSPORTATION (SSA 44). This major industry group includes companies engaged in transportation on the open seas or inland waters. Shore employees in this industry are completely covered by the Social Security Act and UC State laws, but vessel employees as a rule are covered only by the OASI provisions of the act.

(1) *Benchmarks.* The Washington office supplied the State offices with the September 1943 benchmark data by State for major industry group 44 as a whole, including vessel employees. The State distribution is estimated by the BLS on the basis of unpublished material procured from the BOASI and U. S. Maritime Commission. Employment on vessels operated during the war by the War Shipping Administration was included in the BOASI data. In allocating water transport employees to States, the BOASI used the employee's last State of employment as reported by the employer or, if not reported, the State of the last employer's central office.

(2) *Current Estimates.*

(i) For securing current employment estimates in industry group 44 as a whole (including vessel employees) for a given month in a given State, it is recommended that the Septem-

11.2–1 Continued

ber 1943 ratios of estimated total employment in the water transportation industry to UC employment data for the same State be applied as multipliers to ES–203 employment data for the given month in the given State. If ES–203 data are not available for later months, UC coverage should be estimated on the basis of ES–202 data. Employment data estimated in the described manner are not to be published as separate estimates or otherwise disclosed, because the BOASI data were secured on the condition that they are not to be published. BLS assumes full responsibility for not revealing the BOASI data. More specifically, this means that water transportation must be combined with other transport industries (41, 42, 43, and 45) in published figures.

(ii) In applying these ratios to obtain current employment estimates in industry 44 for various States, it is important to be on guard concerning changes in the UC coverage due to the current restoration of ships to private owners by the Government or due to changes in UC "exclusions" of maritime service after 1943, so that the 1943 ratios do not lead to unsatisfactory estimates of employment in States where those changes have taken place. In this respect it should be noted that in 1945 unemployment compensation laws regarding exclusion of maritime service were repealed in five States (Iowa, New Jersey, Ohio, Texas, and West Virginia) and seven other States (Alabama, Georgia, Illinois, Oregon, Pennsylvania, Texas, and Washington) amended existing exclusions. As of July 1, 1946, private maritime employment was covered under almost all State laws.

(iii) In view of these current and expected changes in UC coverage, as compared with the 1943 coverage, the following working rule is suggested for the computation of a new multiplier for the water transportation industry in a given State, whenever, as a result of changes in the UC coverage for that State, a break occurs in the UC employment series during a particular month:

Assume that the break in UC data occurs between December 1944 and January 1945;

(*a*) set the January 1945 estimate of employment in water transportation equal to the December 1944 estimate;

(*b*) compute a new multiplier, by dividing the January 1945 estimate (December 1944) by the UC figure for January 1945; and

(*c*) use the new multiplier against the UC data beginning with estimates for February 1945.

(iv) The method recommended for estimating current employment in water transportation is subject to several limitations, but at the moment it appears to be the best available one.

(c) SERVICES ALLIED TO TRANSPORTATION (SSA 45)

(1) A small segment of major industry group 45 is not covered by the Social Security Act and State UC laws. This segment consists of establishments primarily engaged in renting railroad cars. These establishments are known as car loan companies, and are subject to the provisions of the Railroad Retirement and Railroad Unemployment Insurance Acts.

(i) *Benchmarks.* The Washington office furnished the State offices with average employment benchmarks, by State, for car loan companies for the year 1944. These data are being used in addition to regular benchmarks for industry 45 (UC data supplemented by BOASI data). Benchmarks for car loan companies are based on reports of those companies to the Railroad Retirement Board for the year 1944. The State distribution of employment of car loan companies for 1944 is estimated by the BLS on the basis of percent distribution of employment in class I steam railways for September 1945. It is proposed that a State distribution of employment of car loan companies be prepared every two years.

(ii) *Current Estimates.* For securing employment estimates in major industry group 45 as a whole (including car loan companies covered by the Railroad Retirement Act) for January 1943 forward in a given State, the number of employees in car loan companies covered by the Railroad Retirement and Railroad Unemployment Insurance Acts in that State for 1944

11.2–1 Continued

may be carried as a constant figure and added to monthly employment estimates for the remainder of the industry.

(d) MEDICAL AND OTHER HEALTH SERVICES (SSA 80).

(1) *Benchmarks.* Since UC coverage of this major industry group is incomplete (nonprofit hospitals are not covered by the Social Security programs) the Washington office furnished the State offices with State employment data for Major Industry Group 80, including nonprofit nongovernment hospitals for September 1945. Those benchmarks, by State, have been built from UC, BOASI, American Hospital Association and Bureau of Foreign and Domestic Commerce data. In the future the Washington office expects to provide the States with new benchmarks annually.

(2) *Current Estimates.* The September 1945 benchmarks, by State, should be projected from January 1943 to the current month with UC data for major industry group 80. Since UC coverage of this industry is influenced from month to month by changing legal interpretations, it is suggested that the identical-firm ES–202 reports will provide a better basis for projection than will the ES–203 reports.

(e) EDUCATIONAL INSTITUTIONS AND AGENCIES (SSA 82). As nonprofit educational institutions are not covered by Social Security programs, the covered employment in major group 82 is very small.

(1) *Industry Groups 821—Elementary, Secondary, and Preparatory Schools and 822—Junior Colleges, Colleges, Universities, and Professional Schools.*

(i) *Benchmarks.* The Washington office furnished the Regional office with State employment data in these two groups for the academic years 1942–43 through 1945–46 and recommended the substitution of those data for UC–BOASI figures in Industry Groups 821 and 822 since the level of the latter data is very low on account of the exclusion of nonprofit educational institutions from SSA coverage. The benchmarks supplied by Washington are estimates of the BLS based on published and unpublished material procured from the U. S. Office of Education, National Catholic Welfare Conference, National Council of Business Schools, and U. S. Bureau of Foreign and Domestic Commerce and on the results of conferences held by staff members of the BLS with specialists of these organizations. It should be noted that in estimating parochial school employment, members of religious orders employed in teaching positions were included in the BLS data even though those teachers might not receive pay.

The State distribution of employment in Industry Groups 821 and 822 for 1942–43 through 1945–46 is based (a) on the U. S. Office of Education reports from non-Catholic private elementary and secondary schools for the 1940–41 academic year and from non-Catholic private colleges and universities for 1939–40 and 1943–44 and (b) on the National Catholic Welfare Conference surveys of Catholic elementary schools for 1939–40, Catholic secondary schools for 1941–42 and 1944–45, and Catholic colleges and universities for 1939–40 and 1944–45.

(ii) *Current Estimates.* It is recommended that benchmark data for each academic year be carried as constants beginning with September and ending with August of each year.

(2) *Industry Groups 823, 824, and 829, Nonprofit Educational and Scientific Research Agencies; Libraries, Museums, and Botanical and Zoological Gardens; Schools and Related Educational Services, n. e. c.* Employment in these industry groups consists of two segments: (a) private institutions operated for profit and (b) nonprofit nongovernmental institutions. Establishments in the first segment are covered by UC and BOASI. (All the BOASI small firm data for Major Industry Group 82 should be added to Industry Group 829—Schools and Related Educational Institutions, n. e. c.—because it is considered that there are few very small firms in the other segments of Major Industry Group 82.) Establishments in the second segment are not covered by UC or BOASI. Employment in such establishments probably constitutes a very small segment of total employment in Major Industry Group 82.

11.2–1 Continued

Current estimates for the covered portion of industry groups 823, 824, and 829 can be obtained by use of ES–203 data for these groups after adding the BOASI small firm data for Major Industry Group 82.

(f) OTHER PROFESSIONAL AND SOCIAL SERVICE AGENCIES AND INSTITUTIONS (SSA 83) AND NONPROFIT MEMBERSHIP ORGANIZATIONS (SSA 86). These two major industry groups are only partially covered by Social Security programs. On the basis of statistical material available, it has been ascertained that it is impossible to establish entirely separate satisfactory benchmarks for these two groups. In order to expedite a solution of this problem, it has been found expedient to add a third (covered) industry, Major Industry Group 81, Law offices and related services, to major groups 83 and 86 and to divide these three major groups into two categories as follows: (1) major industry groups 81, 83 and the noncovered part of 86; and (2) the covered part of major industry group 86 which includes also railroad labor unions and railroad associations subject to provisions of the Railroad Retirement and Railroad Unemployment Insurance Acts.

(1) *Benchmarks.* Benchmarks for the above two categories for September 1943 were prepared by the Washington office and were transmitted to the States. These benchmarks, by State, have been built from UC, BOASI, Railroad Retirement Board (covers railroad labor unions and railroad associations—component parts of Industry Group 863), and 1940 census data (number of private wage and salary workers in legal, engineering, and miscellaneous professional services and in charitable, religious, and membership organizations). More recent benchmarks will be sent to the States when available.

(2) *Current Estimates.* The September 1943 benchmarks for the first category consisting of Major Industry Groups 81, 83, and the noncovered part of 86 should be projected from January 1943 to the current month with UC data for SSA Major Groups 81 and 83 combined, and the benchmark for the second category, the part of Major Industry Group 86 covered by SSA and RRB should be projected with UC data for SSA Major Group 86. Since UC coverage of these industries is influenced from month to month by changing legal interpretations, it is suggested that the identical-firm ES–202 reports will provide a better basis for projection than will the ES–203 reports. The BLS does not consider that recommended benchmarks and methods of current estimates for Industries 83 and 86 are ideal but believes that the data will be sufficiently accurate to produce no serious error in any published category of which they are a part.

(g) PRIVATE HOUSEHOLDS (SSA 90). Employment in private households (domestic service) is not included in the BLS estimates of nonagricultural employment.

11.3 INDUSTRIES COVERED BY UC BUT NOT COVERED OR INADEQUATELY COVERED BY BLS SAMPLE

11.3–1 General Method

For industries covered by Social Security programs but not covered or inadequately covered by BLS sample—benchmarks are established in the standard way, i. e., on the basis of UC data supplemented by BOASI data. Efforts should be made to build up a reporting sample of the larger firms for use in projecting the estimates for those industries. In cases where there is already a sample of firms in the industry, it may be tested for adequacy by preparing a trial estimate, say for a period of a year, to be compared with an estimate for the same period based on ES–203 and ES–202 trends. For example, if it is proposed to begin estimating using the sample beginning with January 1947, the trial estimate should begin with January 1946. If the trial estimate is in reasonably close agreement with that based on the ES–203 and ES–202, it will be satisfactory to use the sample in preparation of current estimates. Another method which can be used in some industries is the basing of employment estimates on related activity series, such as production series. How-

11.3–1 General Method—Continued

ever, activity series have seldom been found susceptible to conversion to employment trends for two reasons: (a) The activity series does not follow industry lines; and (b) the fluctuations of the activity series are far more marked than those shown by employment. If it is possible to determine by graphic correlation or another method that some relationship between the activity and the employment series has existed in the periods for which both types of data are available, they may provide an indication of the general trends in the industry.

11.3–2

Estimates for the industries listed below can be prepared with no other special instructions than those given in section 11.3–1.

(a) AGRICULTURAL AND SIMILAR SERVICE ESTABLISHMENTS (SSA 07).

(b) FORESTRY (SSA 08).

(c) FISHING (SSA 09).

(d) TRUCKING AND WAREHOUSING FOR HIRE (SSA 42).

(e) EATING AND DRINKING PLACES (SSA 58).

(f) RETAIL FILLING STATIONS (SSA 59).

(g) BANKS AND TRUST COMPANIES (SSA 60). The employees of the twelve district banks of the Federal Reserve Board are not covered by UC but are classed as employees of quasi-governmental institutions; therefore, these employees are included in the government division along with employees of government corporations. The employees of member banks of the Federal Reserve System are, of course, included with employees of banks.

(h) FINANCE AGENCIES, N. E. C. (SSA 62).

(i) REAL ESTATE (SSA 65).

(j) REAL ESTATE, INSURANCE, LOANS, LAW OFFICES: ANY COMBINATION (SSA 66).

(k) HOLDING COMPANIES, EXCEPT REAL ESTATE HOLDING COMPANIES (SSA 67).

(l) HOTELS, ROOMING HOUSES, CAMPS, AND OTHER LODGING PLACES (SSA 70).

(1) Because of the extreme seasonality which characterizes Group 70 it is one of the most difficult in which to measure employment changes. The reports to BLS and to the State agencies are likely to be overweighted with year-round and larger hotels, and are, therefore, inadequate with regard to seasonal and smaller hotels and camps. Boarding and rooming houses are almost impossible to canvass except through household sampling operations.

(2) For the present, the best benchmark material obtainable should be used, checking carefully with census figures to determine seasonal movements (since UC will usually omit the smaller establishments and BOASI does not have a monthly series). Reports from larger establishments will be useful in determining changes in employment in the year-round hotels. To this may be added estimates based upon previous seasonal movements shown among hotels operating only a part of the year.

Note: Establishments in Industry Group 704 "Organization Hotels and Lodging Houses on Membership Basis" are excluded from OASI coverage and inadequately covered by UC State provisions. The Washington office will attempt to procure more adequate benchmarks for this industry group and will furnish the data to the State offices at a later date provided that the data obtained are satisfactory.

(m) PERSONAL SERVICES (SSA 72). Separate estimates for Industries 7211 ("Power Laundries") and 7221 ("Cleaning and Dyeing Plants") are probably desirable, since establishments in these industries are often large and are permanently located, and trends can be measured from establishments reporting.

(n) BUSINESS SERVICES, N. E. C. (SSA 73).

(o) EMPLOYMENT AGENCIES AND COMMERCIAL AND TRADE SCHOOLS (SSA 74).

(p) AUTOMOBILE REPAIR SERVICES AND GARAGES (SSA 75).

(q) MISCELLANEOUS REPAIR SERVICES AND HAND TRADES (SSA 76).

(r) MOTION PICTURES (SSA 78). Motion picture production (located chiefly in California

11.3–2 Continued

and New York) should be estimated separately because of the large size of the establishments involved.

(s) AMUSEMENT AND RECREATION AND RELATED SERVICES, N. E. C. (SSA 79). This industry includes a great many highly seasonal enterprises, some of them, such as bowling alleys, operating chiefly in the colder months of the year, and others, such as golf and tennis clubs, active chiefly during the warmer months of the year. When a reporting sample of such firms is built up, care should be taken to include in it a proper representation of firms with different seasonal patterns. In particular, some establishments such as race tracks and amusement parks may have very large employment for very short seasons. If the estimates are being prepared by use of a regular BLS sample, which does not include reports for such firms, it will be necessary to estimate their employment and include them in the sample. The estimates for these firms can be based on the UC figures for the previous year. In preparing the estimates, such firms should be handled separately on an accounting basis and individually weighted.

(t) ESTABLISHMENTS NOT ELSEWHERE CLASSIFIED (SSA 99). Any establishment reported in this group should be assigned to the most appropriate industry or industry division. If it cannot be so assigned it should be included in the miscellaneous division unless it is deemed to be outside the scope of nonagricultural series, in which case it is omitted entirely.

11.3–3

Current estimates for the following industries may be prepared by the methods described in section 11.3–1 or by the alternative methods described below.

(a) CRUDE-PETROLEUM AND NATURAL-GAS PRODUCTION (SSA 13). In this major industry group—Groups 131 (Crude-Petroleum Production, including Associated Natural-Gas Production) and 132 (Natural-Gas and Natural Gasoline Production) are covered by the BLS sample and Group 133 (Oil and Gas Field Contract Services) is not covered by the BLS sample. However, it has been found that the BLS sample for Groups 131 and 132 is inadequate for several States. Therefore, the Washington office recommends an optional procedure for estimating employment in Major Industry Group 13:

(1) *First Method.* For estimating employment in Industry Groups 131 and 132 use the BLS sample. For current estimates in Industry Group 133 multiply the number of employees per well being drilled in each State during the benchmark period by the number of wells being drilled during the month for which estimates are being prepared. (Data on the number of wells being drilled each month may be found in *The Oil and Gas Journal* published by Petroleum Publishing Company, Tulsa, Oklahoma, in a table entitled "Summary of Completions" in a column headed "Rigs and Drilling.") Rigs and drilling statistics may also be found in other trade journals under the name of "Rigs in Operation" which sometimes includes temporarily inactive rigs.

Note.—Do not use the series entitled "Wells Completed," which also appears in several journals.

(2) *Second Method.* Use ES–202 data for estimating employment in Industry 13 as a whole. However, if the method selected for a given State results in highly doubtful estimates, those results should be checked against estimates produced by the other method and a subjective decision made as to which estimates are the better.

(b) OTHER TRANSPORTATION, EXCEPT WATER TRANSPORTATION (SSA 43). Current estimates for Industry Group 43 may be secured by extrapolation from ES–202 data or computed as a sum of current estimates for the component 3-digit industries, if estimates for the 3-digit industries are available.

(c) SERVICES ALLIED TO TRANSPORTATION, N. E. C. (SSA 45). For securing employment in major Industry Group 45 as a whole (including car loan companies covered by the Railroad Retirement and Railroad Unemployment Insurance Acts) use ES–202 data and add the 1944 employment data in car loan companies covered by the RRB as constants. See Industry 45 in section 11.2.

11.4 INDUSTRIES COVERED BY UC AND BY BLS SAMPLE AND REQUIRING SPECIAL HANDLING

11.4–1

(a) FULL-SERVICE AND LIMITED-FUNCTION WHOLESALERS (SSA 50—SEE (D) BELOW).

(b) WHOLESALE DISTRIBUTORS OTHER THAN FULL-SERVICE AND LIMITED-FUNCTION WHOLESALERS (SSA 51—SEE (D) BELOW).

(c) WHOLESALE AND RETAIL TRADE COMBINED, N. E. C. (SSA 52—SEE (D) BELOW).

(d) RETAIL TRADE, N. E. C. (SSA 57). For securing current estimates for the above four major industry groups, on the basis of BLS sample, it has been found expedient to split Industry 52 into two parts, wholesale and retail, and to establish only two categories of industries as follows:

(1) Wholesale trade, consisting of groups 50, 51, and wholesale part of group 52, and

(2) Retail trade, n. e. c., consisting of group 57 and retail part of group 52.

If there are facilities for splitting Industry group 52, break down the industry firm by firm, putting wholesale part into group 50 and retail part into group 57. Otherwise, use the evidence of national studies and place 25 percent of group 52 employment into group 50 and 75 percent into group 57. However, in those States in which Industry 521 is the major part of Industry group 52, it will be better to split group 52 on the basis of the wholesale and retail break on building material and lumber in the 1939 Census of Business than to use the suggested national break of 25–75 percent. In any State in which Industry 521 is a substantial part of Group 52, the Census of Business should be consulted and the 25–75 percent break possibly modified in light of that evidence.

SECTION 12

Sampling

BLS Employment Instructions No. A–2, dated March 1, 1948, present interim instructions on sampling procedure, and are the current guide to be followed on this topic. The *Instructions* will be revised at a later date and reissued as section 12, volume II of the *Manual.*

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SECTION 13

Hours and Earnings

13.1 INTRODUCTION

13.1–1 Objective

The BLS now publishes detailed break-downs of hours, hourly earnings, and weekly earnings data by industry for the country as a whole, but not for States. The hours and earnings figures in any one manufacturing or nonmanufacturing industry are averages for the production workers[1] in the group of establishments comprising the industry. The primary aim in the hours and earnings series is to obtain the most representative figures for measuring changes; the secondary aim is to measure the levels.

13.1–2 Factors Affecting Data

For a single establishment the average hourly earnings are obtained by dividing the total reported weekly pay roll by the total reported man-hours. Since the pay-roll figure includes both straight-time and overtime compensation and the hours figure is the number of hours actually worked (or paid for in the case of paid vacations), the resulting average is not a wage rate. It is influenced by changes in the composition of the labor force of the establishment, by changes in wage rates, by changes in the amount of overtime worked, by upgrading of workers, and by other factors. Similarly, the average of hours worked per week, which is obtained by dividing the total weekly man-hours by the number of workers is not a measure of scheduled hours, but is affected by the amount of labor turn-over during the week, changes in the amount of overtime worked and by changes in the ratio of full time to part time employment.

For a group of establishments representing an industry the average of hourly earnings or hours worked per week may be influenced not only by the factors listed above, but also by shifts in employment between establishments in the industry.

13.2 AVERAGE HOURS WORKED PER WEEK

13.2–1 Industry Detail

Average hours are discussed first because they are used in compiling the weights which are used in combining the hourly earnings data for various industries. The first step is to determine the degree of industry detail for which separate hours and earnings estimates are to be compiled. Usually this is one degree finer detail than that intended for publication; e. g., if 2-digit figures are to be published, some or all of the 3-digit and perhaps some of the 4-digit industries need to be compiled for weighting purposes. If only manufacturing totals are to be used for publication, then 2-digit weighting of hours and earnings will probably be sufficient. Throughout this section, unless otherwise stated, it will be assumed that 3-digit is the finest degree compiled for weighting, and that 2-digit is intended for publication.

[1] In nonmanufacturing industries earnings figures are for nonsupervisory employees and working supervisors. Whatever is said in this section on production workers in manufacturing also applies to the nonsupervisory group in nonmanufacturing.

13.2–2 Computation

The total man-hours reported for each 3-digit industry is divided by the number of production workers reported *for the same establishments.*[2] This quotient is expressed to two decimal places; thus, 112,000 man-hours divided by 2,775 production workers gives 40.36 hours worked per week per worker. This is the unweighted average for the 3-digit industry and is not intended for publication. Since the production worker figures given are only sample figures they are not used for weighting, but it is necessary to obtain an estimated total production worker estimate for weighting together the 3-digit industries.

13.2–3 Weighting

If a production worker estimate is available for each 3-digit industry this should be used in weighting the 3-digit average hours when combining them into 2-digit industry averages (see section 13.8–1). The average hours for each 3-digit industry are multiplied by the employment estimate for that industry, the resulting man-hour estimates are added, and the sum is divided by the sum of the employment estimates. This quotient is the 2-digit weighted average of hours worked per week which is to be published. See section 13.3–2 for method of handling "breaks."

13.3 AVERAGE HOURLY EARNINGS

13.3–1 Computation

Average hourly earnings for each 3-digit industry, not intended for publication, are derived by dividing the reported pay rolls by the reported aggregate man-hours for the same establishments. On the tabulations both of these factors have been edited to a one-week basis and hence are comparable.

13.3–2 "Breaks" in Series

In deriving the average hourly earnings for any industry for any given month, great care must be exercised in order to prevent changes in the composition of the reporting sample from unduly influencing the average. This is done by reference to the average hourly earnings figures from two reports. Taking the month of June as an example, it will be noted that the tabulation for July also showed the data for the same establishments for the month of June. An average hourly earnings figure was available first for all the establishments which had reported in both May and June, and again for all the establishments which had reported in both June and July. If these June averages are significantly different it may be because an important establishment is missing from one or the other tabulation. If this is observed to be the case, the data for the missing establishment may be estimated, or a linking procedure used to estimate the bad month. Similarly, such "breaks" occurring in the average hours must be remedied. The Washington office defines a "break" as a difference of one-half of one percent or more. This may prove to be too refined for use in many State series, and may have to be raised.

13.3–3 Weighting

Man-hours are used to weight average hourly earnings. In 13.2–3 it was seen that total man-hours are estimated for each 3-digit industry by multiplying average hours by an employment estimate. These estimates of man-hours are now multiplied by average hourly earnings to obtain an estimate of weekly pay rolls for each 3-digit industry. The pay roll estimates are then added and the sum divided by the sum of the man-hour estimates. The result is a weighted average of hourly earnings for the 2-digit group. If care has been taken to mend "breaks" in the 3-digit hourly earnings series, the weighted 2-digit series will need no special attention for this factor.

[2] It is assumed that man-hours and pay rolls have been reduced (i. e., converted) to a 1-week basis for those firms reporting on a pay-roll basis other than 1 week.

13.4 AVERAGE WEEKLY EARNINGS

13.4–1 General Method

Average weekly earnings may be obtained for each 2-digit industry group by multiplying the weighted average hourly earnings by the weighted average hours worked per week. The result will be weighted average weekly earnings. This method produces internal consistency; that is, if the pay rolls obtained as a byproduct of the weighting of the hourly earnings are divided by the weekly earnings, the quotient will be the employment estimate. This method may always be used when all or most of the establishments reporting employment and pay rolls also report man-hours.

13.4–2 Independent Method

If, in the sample for a given 3-digit industry, a few important establishments or many small ones fail to report man-hour data, the method shown in 13.4–1 will fail to take into account the employment and pay roll information for all these establishments. It is probable that the weekly earnings figure for this industry could be improved by computing the average from the entire sample of reports instead of from only those which reported man-hour information. If the product of the average hourly earnings and the average hours worked per week yields a weekly earnings figure which is significantly different from that independently computed, the following procedure should be followed:

Let Type A refer to those 3-digit industries for which $\frac{\text{aggregate pay rolls}}{\text{aggregate employment}}$ reported by all firms approximately equals $\frac{\text{aggregate pay rolls}}{\text{aggregate employment}}$ for those firms reporting man-hours; and let Type B refer to industries in which $\frac{\text{aggregate pay rolls}}{\text{aggregate employment}}$ for all firms is significantly different from $\frac{\text{aggregate pay rolls}}{\text{aggregate employment}}$ for firms reporting man-hours. Weekly earnings for 3-digit industries will be computed as follows:

Type A industries: Average hours × average hourly earnings.

Type B industries: Pay rolls ÷ Employment.

Weekly earnings for 2-digit groups will be computed by weighting the resulting average weekly earnings by employment, summing the industries, and finally dividing by the employment for the 2-digit group.

13.4–3 Forcing Method

In the forcing method the independent method shown in section 13.4–2 is followed exactly, except that the resulting inconsistency is removed as follows: It is assumed that the average hours worked per week are less influenced by the weaknesses of the man-hour sample than are the hourly earnings, because of the greater dispersion of hourly earnings by plant. Therefore, after the weekly earnings have been computed for the type B 3-digit industry or industries from the sample, the hourly earnings are obtained by dividing the weekly earnings by the average hours per week. The hourly earnings are then weighted by man-hours in the fashion illustrated in section 13.3–3 in order to obtain a 2-digit average hourly earnings fully consistent with the weekly earnings average.

13.4–4 to 13.4–9 RESERVED FOR OTHER METHODS

13.5 EARNINGS AND HOURS—CHOICE OF METHOD

13.5–1

Experience will demonstrate which methods are best used in any given State. In general, it is the opinion of the Washington staff that weak man-hour samples are to be strengthened in order that they may be relied upon for the computation of weekly earnings, thus removing the chief problem. Where the problem described in 13.4–2 continues to prevail, however, due to the fact that a few important establishments are not willing or able to supply man-hour data, then a choice between the independent and forcing methods must be made. The forcing method is to be preferred for the sake of consistency; and should therefore be chosen unless it is known that the non-man-hour establishments have notably different levels or trends of average hours than do the establishments for which man-hour reports are available. As weekly earnings are known for both classes of establishments, this might be inferred from any general knowledge available about relative levels of hourly earnings between the two classes.

13.6 SPECIAL WEIGHTING PROCEDURES

13.6–1

In the foregoing it has been assumed that there is available for each 3-digit industry desired to be weighted an estimate of employment for the current month. This estimate was multiplied by the average hours to secure total man-hours. However, although it may be desired to weight the hours and earnings within a 2-digit group, there may exist no 3-digit employment estimates. If this is the case, it is permissible to weight the average hours by constant employment weights derived, for example, from 1947 UC tabulations on a 3-digit basis, revising these weights periodically. In no case, however, should such constant weights be used in combining the 2-digit industry groups into all manufacturing, since current employment estimates, prepared by the States, are available for this purpose.

13.7 ESTIMATED TOTAL WEEKLY MAN-HOURS

13.7–1

A byproduct of the weighting procedure was an estimate of total man-hours worked by industry. In no event should consideration be given to publication of this estimate, because: There is no benchmark for such an estimate; it includes hours paid for but not actually worked; and BLS reports do not provide information on the hours of nonproduction workers. The movements of the series provide only a rough indication of changes in total weekly man-hours and may be used for analytical purposes within the office.

13.8 ESTIMATED TOTAL WEEKLY PAY ROLLS

13.8–1

No consideration should be given to the publication of this byproduct estimate, because: There is no benchmark for such an estimate other than UC total wage data for covered firms; BLS reports do not include the pay of nonproduction workers; information is not obtained on irregular bonuses or other special payments to production workers. The Washington office is giving some consideration to the problems involved in estimating total wages and salaries, and will advise the State offices when it is felt that the BLS contribution in this field is timely and worth while.

13.9 TOTAL EMPLOYMENT ESTIMATES FOR WEIGHTS

13.9–1

Where estimates of the number of production workers are not available, total employment may be used for weights. However, in certain groups, such as transportation equipment, printing, and food, the ratios of production workers to all employees are smaller than in most other groups. Research into the ratios available from the latest Census of Manufactures data might be useful in suggesting adjustments that could be made to avoid over-weighing the earnings and hours of these groups.

13.10 ATYPICAL FIRMS

13.10–1

Special attention is called to the handling of atpical firms or series. When firms show no fluctuation in employment but have an atypical factor in their hours or earnings (such as a strike for one-half week or departments of high-paid employees laid-off for half a week) an attempt at weighting should be made to reduce the influence of this firm if the industry in question does not have a proportionate sample. Such weighting can be performed by working out aggregates for the industry for any 2-month comparison the aggregates for the preceding month are used which exclude the figures reported by the atypical firm. The residual totals for the preceding month are then used as a sort of benchmark from which to project new estimates using the movements shown by the sample excluding the atypical firm. The atypical firm's report is then added to these totals. This last total is then used to secure hours and earnings data in which atypical fluctuations are reduced to a minimum. Whenever such special weighting is performed care must be taken that it is performed in the following months until the firm returns to normal operation.

13.11 to 13.49 RESERVED FOR OTHER GENERAL METHODS AND CONCEPTS

13.50 OPERATING PROBLEMS

13.50–1 Worksheets

A sample worksheet for use in performing the operations described under the general method (13.2–13.4) is shown in figure 13.1. It will be noted that columns are provided in each case for the previous month and the current month of each comparison, thus simplifying the analysis of "breaks" in the sample. One sheet is used for each monthly comparison, the period being identified in the upper right-hand corner of the form. It may be advisable to use a separate sheet for each 2-digit group for which weighted averages are being prepared.

FIGURE 13.1

SAMPLE WORKSHEET FOR COMPUTING WEIGHTED HOURS, HOURLY EARNINGS, AND WEEKLY EARNINGS FOR MAJOR GROUP 20, FOOD AND KINDRED PRODUCTS

*Comparison*_____ (Month-Month)

Group (or industry)	Estimated employment (hundreds)		Average weekly hours		Average hourly earnings (cents)		Aggregate hours (thousands)	Aggregate earnings (thousands)		Average weekly earnings
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
							(1)×(3)	(2)×(4)	(5)×(7)	(6)×(8)	(3)×(5)	(4)×(6)
201–Meat products												
202–Dairy products												
203–Canning and preserving, etc.												
204–Grain-mill products												
205–Bakery products												
206–Sugar												
207–Confectionery, etc.												
208–Beverage industries												
209–Miscellaneous food preparations, etc.												
Totals and Averages for Major Group 20												

SECTION 98

Miscellaneous Procedural Rules

98.1 CHECKING FOR ACCURACY

98.1–1 Figures To Be Checked

All figures, whether worksheet or final, should be checked for accuracy of computation and for accuracy in copying the data from their sources. Figures copied from their sources by one person should be checked by another. Computations should be made by two persons, independently, and any differences should be rechecked by the original computer. An adding machine check should be made for all additive items.

Totals and subtotals on all tables and worksheets on which the totals should agree should be checked against one another for agreement. In the event of disagreement, it is frequently possible to save time by localizing the probable occurrence of error by inspection or by checking raw totals, column totals, or subtotals.

98.1–2 Inspecting for Consistency

Errors can frequently be detected by an overall inspection check for consistency. Such inspection is useful in indicating possible existence of error as reflected by figures that appear unreasonable in the light of the checker's knowledge of the general order of magnitude of the data. Glaring errors, such as misplaced decimals or erroneous copying, can readily be discovered by intelligent inspection.

98.2 ROUNDING OF WORKSHEET FIGURES

98.2–1 Round to Nearest Units Digit

Procedures for rounding data for publication are discussed in section 8, vol. II. In worksheet calculations the employment data should be rounded to the nearest units digit, inasmuch as our own sample firms as well as UC and BOASI accounts report in terms of units. When worksheet estimates obtained as a result of multiplication or division contain decimals, they should be rounded to the nearest unit. When the decimal beyond the units digit is exactly .5, round to the nearest even unit.

98.3 TABLE CONSTRUCTION

98.3–1 Tables To Be Self-Explanatory

Tables, whether prepared for publication or to be used as worksheets should be prepared according to some logical arrangement. The presentation should be concise yet self-explanatory. Published tables issued for public information or worksheet tables used for analysis by the office in which they were prepared, or more particularly by the Washington office, should be sufficiently clear as to obviate the need for requesting further information regarding the source or meaning of the tabulated data.

98.3–2 Sample Table

An example of a table set up in proper form with the various parts labeled for illustration appears in the adjoining column.

98.3–3 Worksheet Tables

Worksheet tables should always be completely and carefully labeled and all computation sheets used in deriving figures for these tables, together with explanatory material, should be attached so that an analyst reviewing the tabular data will be able to follow all steps in the method and computations employed.

TABLE 7

Estimated number of employees in nonagricultural establishments in West Dakota, by industry division for selected months of 1946 and 1947 — Title.

	Industry division	Estimated number of employees				Caption (box head)
		May 1947	April 1947[1]	March 1947	May 1946	
	Total estimated employees[2]	20,000	19,800	19,300	17,000	Body.
Stub	Manufacturing	8,200	8,000	7,900	7,400	
	Mining	500	600	600	400	
	Contract construction	1,200	1,100	1,200	1,000	
	Transportation and public utilities	2,900	2,600	2,700	2,300	
	Trade	2,700	2,700	2,500	2,100	
	Finance	900	1,000	1,000	900	
	Service and miscellaneous	1,200	1,300	1,400	1,000	
	Federal, State and local government	2,400	2,500	2,000	1,900	

[1] Revised over previous month's report.
[2] Estimates include all full- and part-time wage and salary workers in nonagricultural establishments who worked or received pay during the pay period ending nearest the 15th of the month. Proprietors, self-employed persons, domestic servants, and personnel of the armed forces are excluded. — Footnotes.

98.4 EVALUATION OF POTENTIAL REFINEMENTS

98.4–1 Mathematical Refinements

There is a tendency among some statistical workers to impute a greater degree of significance to results obtained by the use of mathematical refinements than is frequently warranted by the accuracy and nature of the basic data or by the methods of refinement employed. The time and expense involved in fitting a mathematical curve to a time series, for example, may not only outweigh the value of improvements in the results obtained, but it may even occur (as it not infrequently does) that a carefully drawn free-hand curve will yield results as reliable or more reliable. Thus, although we wish to attain precision in our benchmarks and estimates, we should not lose sight of the fact that even our best data are subject to errors in reporting and in classification of industries, and to incompleteness. Accordingly, while it is desirable to employ scientific methods in processing these data, good judgment must be used in application of such methods, so that the time and expense incurred in so doing should be fully justified by the improved results that are yielded.

Index

NOTE: Roman numeral, in parentheses, denotes volume number of *Manual*. Arabic numbers refer to section within the volume. This index covers all three volumes of the *Manual*.

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VOLUME

3

BLS-STATE
Employment Statistics
Manual

Volume III **TECHNICAL APPENDIX**

United States Department of Labor
Bureau of Labor Statistics

BLS-State

Employment Statistics Manual

in three volumes

Volume III—Technical Appendix

UNITED STATES DEPARTMENT OF LABOR
Maurice J. Tobin, *Secretary*

BUREAU OF LABOR STATISTICS
Ewan Clague, *Commissioner*

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SECTION 1

Introduction

1.1 THE TECHNICAL APPENDIX

1.1–1 Scope

Volume I of the *BLS–State Employment Statistics Manual* presents basic policy, administrative practice, and historical background for the State Program. Volume II is the day-to-day procedural guide. The third volume is entitled *Technical Appendix*, and is devoted to theory and mathematical developments which underlie the selected procedures. Obviously no attempt is made in the *Technical Appendix* to establish a complete theoretical basis for the entire program, either in terms of chosen concepts and assumptions or in terms of rigorous internal consistency. That would, on the one hand, be much too large an undertaking to be encompassed by the *Manual*, and, on the other hand, would in many ways duplicate existing material. The *Technical Appendix* includes selected topics in this general area: topics which either are peculiar to employment statistics programs or are not likely to be found discussed in the usually available publications.

The *Technical Appendix* will mature with the State Program. All readers are invited to make recommendations regarding the *Appendix* to the Washington office of BLS.

SECTION 2

Basic BLS Employment Estimating Technique

2.1 "NORMAL" CONVERSION FACTORS

2.1–1 Introduction

BLS schedules request data for 1 week, but some employers report data for longer periods—2 weeks, a half-month, a month. In these cases it is necessary to convert pay-roll and man-hour data to a 1-week basis and the so-called "standard" conversion factors are generally used for this purpose.

In considering a proper conversion factor for pay rolls in half-monthly and monthly reports covering salaried employees, the basic concepts of BLS data, the uses to which they are put and the possible additional work load were considered. The schedules request data for 1 week ending nearest the 15th of the month. Employment, pay, and hours figures should all be comparable. The half-monthly and monthly pay reports cover a fixed proportion of a month, irrespective of the number of days in a pay period. Hence, the weekly concept does not make sense in these cases unless the concept of a "normal" or "representative" month is introduced.

2.1–2 The "Normal" Month Concept

Different ways of conceiving the "normal" month lead to somewhat different "normal" conversion factors, as follows:

(a) Actual Number of Days Worked Approach. In this approach the standard practice of using the reported days worked information is followed. The "normal" factor for each report is based on the number of days the majority of employees worked during the mid-month week and during the report period but assuming a "normal" month of 30 days always beginning on a Monday. (Assuming a 30½ day month will change results somewhat but not enough to affect the final figures.) For example, in a report from the 1st through the 15th covering salaried employees in an establishment where a 5-day operating schedule is maintained, the reported pay roll would be reduced by applying the factor 0.45 (5 divided by 11). If the work schedule is 6 days, the factor would be 0.46 (6 divided by 13).

The factors for the above and other work schedules are shown in the following table:

Pay period	Workweek of majority of employees	Assumed work days in report period based on "normal" month	"Normal" conversion factor
1–15	5	11	0.45
1–15	5½	12	.46
1–15	6	13	.46
1–30	5	22	.23
1–30	5½	24	.23
1–30	6	26	.23

(b) Annual Salary Approach. In this approach salaried employees are assumed to receive a yearly salary. No cognizance is taken of the actual number of work-days in the week since the employees are paid for the entire week regardless of the number of days worked. Since there are 52 weeks in a year, a "normal" month would be composed of $\frac{1}{12}$ of 52 weeks, or 4⅓ weeks. A monthly report would, therefore, cover a 4⅓ week period and the weekly equivalent of the reported pay roll would be secured by dividing the reported pay by 4⅓. In actual work, however, the reciprocal of 4⅓, (0.23), is used.

A semimonthly report would cover only half of the "normal" 4⅓ week period—or 2⅙ weeks. Semimonthly pay reports would therefore, be

2.1–2 The "Normal" Month Concept—Con.

divided by 2⅙ (or multiplied by the reciprocal 0.46) to secure weekly pay equivalent.

(c) STANDARD WEEK APPROACH. In this approach the nonwork (and work) days are all allocated over the entire "normal" report period. Since there are 365 days in a year, a "normal" month is assumed to have 30.4 days; a "normal" semimonth 15.2 days. The "normal" factor is secured as follows using the notation:

F="normal" factor desired.

d=number of days assumed in "normal" report period (15.2 or 30.4).

w=number of work-days in week of 15th.

Approximate the number of work-days in report period. This equals $\frac{w}{7}\times d$.

Divide the number of work-days in week of the 15th, (w), by the number of work-days in the report period to yield factor F.

$$F=w\div\left(\frac{w}{7}\times d\right)=w\times\frac{7}{wd}=\frac{7}{d}$$

When $d=15.2$, $F=0.46$.
When $d=30.4$, $F=0.23$.

NOTE: Assuming a 15-day semimonth, 30-day month, the factors are 0.47 and 0.23.

2.1–3 "Normal" Factors To Be Used

It is apparent that there is only slight variation in the factors derived from different approaches. There is, therefore, an advantage in adopting the uniform factors 0.46 and 0.23 in all half-monthly and monthly pay reports covering salaried employees.

SECTION 3

Sampling Theory

This section reserved for discussion of the above topic.

SECTION 4

Design of Schedules and Forms

4.1 DESIGN OF SCHEDULES

4.1–1 Introduction and History

The BLS reporting system is based upon the collection of voluntary reports from employers. Because of the optional feature of the reporting program, schedule design has assumed a role of major importance, and every effort is made both to secure the cooperation of reporters by presenting schedules pleasing in appearance and to solicit information in a fashion which will yield adequate and consistent data.

The recurrent collection of employment data in the BLS began in 1915 when the Bureau instituted the publication of employment series in four manufacturing industries. Through the years the industries surveyed were gradually extended. A detailed history of the development of these industry series may be found in section 4.1, volume I. With the general schedule (BLS 1767) introduced in 1946, every industry of the nonagricultural field of employment was covered by some BLS schedule. When additional special industry schedules are developed, reports from establishments in these industries will be shifted to the new schedules.

During the years the form of the schedules has been considerably modified. A major change, for example, was introduced in 1930 when the Bureau shifted from a one-time schedule to a shuttle schedule for reasons given in section 4.1–5 (e). It must not be thought that the employment schedules will eventually reach an ideal form from which no changes need be made. Adjustments of items on the yearly schedule must be planned continually for the following reasons:

(a) Changes in the nature of the data collected.

Examples

(1) In December 1943, as a result of a Nation-wide agreement, bituminous coal miners were awarded portal-to-portal pay which increased their earnings. Since some doubt would arise in the respondent's mind as to whether this amount should be reported in the pay roll figure, a sentence was added to the pay roll definition stating that portal-to-portal pay should be included.

(2) Because of the many plant reconversions expected immediately after the close of war, "partial shut-down for conversion of facilities" and "hiring after reconversion of facilities" were added in 1946 in the section of the schedules relating to comments as possible explanations for large changes in employment, pay rolls, or hours from one month to another.

(b) Changes in the need for data.

Examples

(1) With the ending of the war it was anticipated that the question of how many women were employed as a part of the total labor force would assume an increasing importance. Consequently, a column for reporting total women employees was added in order that estimates of the number of women in nonagricultural employment could be prepared.

(2) The column on wages paid for vacations not taken was deleted in 1947. Since most employees have been taking their vacations rather than pay in lieu of vacations, with the ending of the war, the information has become of minor importance as an editing aid.

4.1–1 Introduction and History—Continued

(c) Development of more rigid standards of reporting or estimating.

Examples

(1) Prior to 1945 the BLS collected data on employment, pay rolls, and hours for wage earners. The definition of wage earners was not necessarily comparable with definitions used by other agencies and by private industry. In November 1944 the Division of Statistical Standards, Bureau of the Budget, developed through an interagency committee a standard definition of types of workers to be used in collecting employment, pay-roll and man-hour data for wage earners in manufacturing establishments. At the same time the terminology was altered from "wage earners" to "production workers." The standard definition for production workers, therefore, replaced that for wage earners on the BLS schedules in 1945. (See the Statistical Reporter, a publication of the Bureau of the Budget, November 1944.)

(2) Before 1947 the conversion factors used to deflate earnings figures from longer-than-weekly reports to weekly equivalents were based on the supposed number of days establishments in an industry operated—not on the number of days worked by the majority of employees. No systematic account had been taken of variations in the scheduled workweek among different establishments in the same industry nor of the effect of holidays, strikes, or interrupted work schedules. In many instances distorted weekly-equivalent figures resulted. On the 1947 schedules a column for a code designating the proper conversion factor was introduced. (See sec. 6.5–17, vol. II.)

(3) In the past certain components of the nonagricultural employment series were projected by using links based on the nonsupervisory employees. In 1947 a column for total employees was placed on all schedules because of the need for computing better nonagricultural employment estimates and because of the usefulness in comparing our employment data with benchmark data.

4.1–2 Current Types of BLS Employment Schedules

At present the BLS collects employment, pay roll, and man-hour data from business establishments on several long-form schedules (figures 6.2 through 6.18, vol. II). In many States the data are collected for the BLS through contractual relations with State agencies. In order to discuss the types of schedules used in greater detail, the terms most frequently used with respect to the employment schedules are defined below:

(a) REGULAR SCHEDULES are those covering a calendar year which request employment data for all employees and information on employment, pay rolls, and in some cases, man hours for production and related workers or for nonsupervisory employees and working supervisors. Included in this group are the schedules for manufacturing, mining, trade, hotels, insurance, public utilities, and laundries.

The regular schedules are of two types: the national or *direct* schedules which are buff in color; and the *State* schedules which are white, if printed in Washington. States doing their own printing may and do use various colors.

(1) *Direct* schedules are used to collect data from establishments in noncontract States and from special interstate firms in contract States. In these cases the respondents mail their monthly reports directly to Washington for editing and tabulation, and they receive the schedules from Washington for completion the next month.

(2) *State* schedules are those used jointly by a contract State agency and the BLS. Most of the contract State agencies use schedules identical to the regular BLS schedules except for their color. In addition to the color distinction State schedules bear the words "Cooperative Report" and the name and address of the contract State agency. These schedules are sent to the respondents by the State agency each month and returned there by the respondents after the current data have been entered.

A few State agencies prepare and print their own schedules. These forms are subject to the minimum requirements of the BLS and to the

4.1–2 Current Types of BLS Employment Schedules—Continued

approval of the Bureau of the Budget. The schedules also carry a reference to the contract arrangement and the name and address of the agency involved.

(b) The SCHEDULE FOR CONSTRUCTION INDUSTRIES differs from the regular schedules in the following respects:

(1) Data are requested for only 1 month but from many construction sites operated by a firm.

(2) The schedule does not carry the code boxes which appear on the regular BLS forms. The processing of the construction schedule, handled by a separate staff of employees from those responsible for the other phases, does not require code boxes.

(3) The definitions used differ in a number of respects from the standard definitions used on the other schedules. The data requested on wages and hours relate to all employees, not merely to nonsupervisory employees and working supervisors.

(c) SPECIAL SCHEDULES have been designed to cover those industries which carry definitions other than the standard definitions used by the BLS. These schedules ordinarily cover a 12-month period.

(1) *Telephone employment schedule.* Data are collected from the Bell System and American Telephone and Telegraph Co. for total operations, the traffic department, and the plant department. The information requested includes employment, pay rolls, and hours for employees covered by the Fair Labor Standards Act and also the total number of employees. Independent telephone companies report on the regular public utilities schedule.

(2) *Telegraph employment schedule.* The Western Union Telegraph Co. furnishes data for each of its geographic divisions for traffic, plant, and commercial departments separately, and for all other departments combined. The data requested on employment, pay rolls, and hours cover all salaried, direct operations employees such as operators, operations clerks, linemen, and other maintenance staff only. These are termed landline employees on the schedule. Excluded from the report are all general and divisional headquarters personnel, trainees, messengers, and employees paid entirely on a commission basis.

(d) WHOLESALE-RETAIL TRADE AND INSURANCE SCHEDULE. This is a special 1-month schedule used to collect data from large firms with many stores or offices.

4.1–3 Items Appearing on Present Employment Schedules

The items appearing on the regular employment schedules are listed below. In some cases the reason for their inclusion and their location on the forms is given. When suggestions for changes in the schedules are made, they can often be more readily described by reference to this list. To facilitate recording and processing, as well as clearance, each BLS employment schedule is standardized as far as possible in the following respects:

(a) Heading:

(1) Descriptive form title, "Report on Employment and Pay Roll."

(2) Descriptive form title giving industries covered. Since some large firms are engaged in a number of industries, the title indicates to the reporter which industry data are requested. The general schedule does not carry a title, since it is used for such diverse industries.

(3) BLS form number in upper left corner on face of schedule. These code numbers are assigned by the administrative office to schedules and office record cards. They serve as an identifying feature in hand sorting.

(4) Bureau of the Budget approval number and expiration date in upper right corner on face of schedule. The approval number and date appear in the position described to comply with title II, regulation A, under the Federal Reports Act of 1942.

(5) Instructions for return. Brief instructions on prompt returns and careful handling are included. A specific date for the return of the schedules is avoided for the following reasons:

4.1–3 Items Appearing on Present Employment Schedules—Continued

If a date late in the month were selected, many firms whose data are available early would delay mailing the schedules until the due-date. This would cause a hump in the workload of the machine tabulation section. It is preferable for tabulation purposes that arrival of schedules for processing be spread over a long period.

If a date just after the week ending nearest the fifteenth were chosen, many firms whose data would not be available until later in the month might become discouraged and decide either not to respond at all or to give estimates of the actual data in order to meet the deadline.

(6) Identification of respondent. Space for this purpose is located so that the firm name and address (when addressographed) will appear through the opening of the special window envelope used to mail the schedules.

(7) Box for location of establishment covered by the report. This section is included so that firms may indicate a change in their number of establishments. Notations of such changes are helpful in explaining a break in employment, pay rolls, or hours.

(8) Confidential clause. This indicates to the respondent that his information will be regarded as confidential by BLS employees.

(b) Inquiry on kind of business or on product manufactured. These data are requested so that the Bureau may be aware of any change in major activity of the establishment. (See sec. 2, vol. II.)

(c) Items for which data are collected monthly.

(1) Period reported. One pay period (preferably 1 week) ending nearest 15th of month. The Division of Statistical Standards, Bureau of the Budget, established this pay period through an interagency agreement for use by all Federal agencies collecting employment data. (See Statistical Reporter, a publication of the Bureau of the Budget, November 1944.)

(2) Production and related workers or nonsupervisory employees and working supervisors—number, pay roll, and hours. On the trade, insurance, and general schedules, data on commissions are also requested. The manufacturing schedules also request the number of women production workers.

(3) All employees of both sexes and all women.

(4) Number of days worked by majority of employees, including paid holidays. These data are used to obtain the conversion factor necessary to compute weekly earnings figures from longer-than-weekly reports. They also enable editors to account for changes in employment, pay rolls, or hours resulting from a variation in the scheduled workweek of an establishment because of a strike or holiday.

(5) General wage rate change. These data often explain large pay roll changes.

(6) The trade and general schedules request monthly data on number of establishments. Since firms in these industries often report several establishments on one schedule, it is advisable to keep a monthly check on the number of establishments being reported.

(d) Request for comments on the factors responsible for large fluctuations. These comments on major changes aid in the analysis of the data for releases or reports. They also assist the editor in determining the acceptability of the figure.

(e) Columns for editorial notations. These columns enable the editors to indicate by code the explanation for any major change in employment, pay rolls, or hours. (See sec. 6.3–4, vol. II.)

(f) Instructions for use of form.

(1) Brief notes on face of schedule referring to correction of mailing address.

(2) General instructions in column headings outlining broad items to be included.

(3) Specific detailed instructions on reverse side of form defining the items, and amplifying instructions appearing on face of schedule with an instruction for each column the respondent is asked to use.

4.1–4 Origin of Request for New Items or Revision of Items Currently Covered

Any employee, Federal or State, may propose a new item for inclusion on the employment schedules or may suggest a revision of an item currently requested. Such suggestions constantly improve the quality of our forms.

The request for addition of a new item or for revision of a current item should be submitted to the Branch of Employment Statistics together with a justification of the need for the change to insure proper evaluation of the suggestion.

4.1–5 Factors Considered in Designing the Employment Forms

(a) The questions should be easy to answer so that response will be as complete as possible. The forms carry no mandatory power. As all reports are on a voluntary basis, the simpler the schedule, the more replies will be induced. The request should be formulated with such care and effectiveness as to avoid frequent or radical revisions. Radical revisions may have the effect of destroying comparability with the past.

(b) Since the instructions are a vital part of the form, they should be carefully formulated using simple and concise language. Instructions with reference to mailing, address, etc., should be uniform on all schedules. Specific instructions should vary from schedule to schedule only to describe conditions peculiar to the industry covered by a specific schedule. For example, production workers on the mining schedule would be those engaged in drilling, blasting, or in excavating, while production workers under manufacturing might be engaged in fabricating, processing, or assembling an item.

(c) In designing a form which will be processed mechanically, it is important to consider the punching sequence when the columns are arranged. The inclusion of unpunched columns between columns to be punched should be avoided as it breaks the punching rhythm and leads to punching errors. Such breaks cannot always be completely avoided, but they should be reduced to a minimum.

(d) The size of a questionnaire is determined by a number of factors. Primary weight in the design of BLS schedules is given to ease in completion by respondents and ease in editing. For these reasons the regular schedules are designed for 8½- by 14-inch sheets. This large size makes it possible for all data to be entered on one side of the form. The respondent needs use only the face of the schedule after he has acquainted himself with instructions on the reverse side. The editors need examine only the face of the schedule when reviewing the data reported. A schedule of size 8 by 10½ inches would be used if the above conditions could be filled, because this size is preferable for handling and filing. The regular construction form, on which less information is requested, is printed on sheets 8 by 10½ inches. This schedule size is preferable to the size of the special construction form of 8 by 12½ inches. The larger size is necessary for reports of large firms, since it allows for data from additional construction sites.

(e) The advantages of the shuttle form versus the one-time form must be considered each time a new schedule is designed. For the regular employment forms the shuttle type has been found most satisfactory for the following reasons:

(1) The time in preparing the schedule for distribution is reduced since addressograph and transcription of codes are necessary only once a year rather than monthly.

(2) The shuttle form permits the respondent to see the data he submitted the previous month. This is an aid in getting more comparable data from month to month.

(3) The editor has the data for previous months readily available for careful review.

The construction schedule, however, is designed as a one-time form because it covers shifting locations. Since the construction sites of a firm shift from month to month, it is not desirable for the schedule to cover more than one month.

The special schedule used for wholesale and retail trade and insurance is also a one-time form. It is set up to cover many branches of

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4.1–5 Factors Considered in Desigining the Employment Forms—Continued

one firm, and was designed for the convenience of the respondent.

(f) The preparation of the nonconstruction employment schedules at intervals during the year has been given much thought in the past. There are a number of advantages arising from a staggered system:

(1) The year-end hump in workload is avoided. If each schedule expires at a different time, the transcription of codes and previous month's data and the addressographing would be spread over the entire year and would not overburden the clerical staff at any one time.

(2) Each schedule would be given individual attention with respect to format.

(g) Some reasons why the preparation of schedules on a calendar year basis is preferable follow:

(1) Work on the schedules under the present arrangement can be done as a mass production task. This means a saving of time. When these tasks are split into little segments, starting and stopping time becomes a large factor. This applies to the cutting and pasting of the schedules, the photostating, and the running of addressograph plates.

(2) The year-end hump in workload occurs because the schedules are not printed early enough. This hump may be avoided by getting the new schedules in the hands of the operations staff late in October. It is then possible to have addressographing and coding operations performed prior to December leaving only the transcription of the December data on the new forms.

(3) Any system of staggering schedules must be identical as to timing in all contract States. Without such time agreement the Bureau of the Budget must review the same schedule several times. Under the present arrangements all State and BLS schedules are on the calendar year basis and only one hearing is necessary.

(4) The BLS Branch of Machine Tabulation would have difficulty with a staggered schedule system because the schedules are punched as they are received. Under a staggered system the current month's information would appear in the first to the twelfth line depending upon the industry in which the schedule falls. Since delinquent schedules are often received, the possibility for error would be increased. The schedules could be sorted before punching, but the sorting of cards by machine is more efficient.

(5) The States would experience difficulty with the staggering system for the same reasons that apply to the national schedules. In addition contract States would need to purchase addressograph service for a handful of schedules whenever a new industry schedule became available. Such arrangements would need to be made twelve times a year instead of once.

(6) Many large firms receive schedules for several industries. These schedules are frequently sent to a central office and filled out for all subsidiaries. Such reporters would be confused by the varying position for the current month's data. Assembling such multiple schedules with varying expiration dates would be burdensome.

SECTION 5

Principles of Industrial Classification

5.1 GENERAL PRINCIPLES

5.1–1 The Classification System

Classification is a tool for simplification in the processing, presentation and analysis of data. The method of classification is usually determined by (a) the form in which the basic data are available and (b) the uses to which the data will be put. This determination is rarely unique, in view of the wide area that exists for the exercise of judgment.

Basic employment data are available in the State program in the form of establishment reports. The data are used to develop continuous monthly series on employment, pay rolls, hours and earnings, and other economic variables in as much detail as possible for use in economic analysis. Accordingly, the classification system must be one which classifies establishments into significant economic groups.

There are many ways of classifying establishments into significant economic groups. They might be grouped by corporate structure, by corporate interrelationships, by capital investment, or by profits. Or they might be grouped by size. Although such classification systems are useful for many kinds of analysis, it is apparent that they would produce groups of great heterogeneity with respect to composition of work force and to fluctuations in employment, pay rolls, and hours. Still another way would be to group establishments on the basis of product (manufacturing) into broad groups such as consumers' or producers' goods, durable goods or single-use goods, or more refined groups such as producers of monkey wrenches, of lead pipe, or of brass buckles; or, on the basis of activity (nonmanufacturing) into broad groups as mining, trade, transportation, etc., or into smaller groups such as bituminous coal mining, wholesalers of office furniture, retailers of men's clothing, local bus transportation, etc. When the classification is by product or activity, the composition of the work force and fluctuations in employment, pay rolls, and hours worked in any classification are likely to be more nearly homogeneous than under groupings based on other criteria. This is one of the reasons why the BLS and many other government agencies use a product or activity classification system.

5.1–2 System Must Conform to Structure of Industry, Establishment-wise

Granted that a system of classifying establishments by product or activity is to be preferred for our purposes, there are still many unanswered questions. How finely should products be broken down? Too many categories would become unwieldy; too few would give heterogeneous groups. In manufacturing to what extent should either process or materials used, or both, be considered, given a similar general class of products? Is method of distribution to be considered? For example, should a distinction be made between bakeries selling primarily at retail and those selling primarily at wholesale? Analogous problems are present in the nonmanufacturing industries.

The answers to all these questions and others must be largely empirical. The only effective guide in making these decisions is that the classification system should conform to the existing structure of industry, establishment-wise. Moreover "To be recognized as an industry, each group of establishments must have significance from the standpoint of the number of establishments, number of wage earners, volume

5.1–2 System Must Conform to Structure of Industry, Establishment-wise—Con.

of business, employment and pay-roll fluctuations, and other important economic features."[1]

These guiding principles were followed in constructing the system of classification by product or activity being used in the State Program, namely, the SIC structure for manufacturing and the SSA structure for nonmanufacturing. While the broad over-all concept in this system is product or activity, the guiding principles lead to varying considerations of other factors at each level of classification. Thus, material used is the principal basis for such major groups in manufacturing as tobacco manufactures, paper and allied products, products of petroleum and coal, and rubber products. On the other hand, the general class of product is the basis for ordnance and accessories, food, furniture and fixtures, transportation equipment, and others. General process distinguishes printing, publishing, and allied industries, while stage of manufacture characterizes primary metal industries. Within these major groups, again, varying consideration is given in subclassification to type of product, manufacturing process, materials used, etc. At the 4-digit level, coverage is most often defined in terms of specific products, but in many instances the absence or presence of certain primary operations rather than the final product is the controlling factor. This is discussed in greater detail in section 5.1–4 (c).

Among nonmanufacturing industries varying weights are likewise given to specific criteria at each level of classification. Activity characterizes mining, while product mined is the basis for subdivisions. Activity again (the distribution of commodities) defines trade, while position in the flow of commodities distinguishes the wholesaler from the retailer; type of commodity handled, degree of independence from primary producer, whether or not the trader takes title to goods—these are the bases for subclassification, and so on. It is worth noting here that the sale of services is not confined to the so-called Services Division. Certain unique services of general importance such as are involved in transportation, utilities, finance, insurance, and real estate are in other industry divisions, so that the Services Division is really a residual group of services not classified elsewhere; as such it is a relatively heterogeneous group, which strikingly illustrates the variation in criteria for classification since an important objective is homogeneous groups.

Throughout all the variation in criteria for classification the important connecting principal is conformance with the structure of American industry, establishment-wise.

5.1–3 What Is an Establishment?

"An establishment is generally defined as a single physical location where business is conducted or where services or industrial operations are performed; for example, a factory, mill, store, mine, or farm. Where a single physical location comprises two or more units which maintain separate payroll and inventory records and which are engaged in distinct or separate activities for which different industry classifications are provided in the Standard Industrial Classification, each such unit shall be treated as a separate establishment. An establishment is not necessarily identical with the business concern or firm which may consist of one or more establishments. It is also to be distinguished from organizational subunits, departments, or divisions within an establishment."[2]

Moreover, "Administrative offices or auxiliary units which may be located at a site separate from the related operating or producing unit(s) of the same firm are classified according to the principal industrial activity of the operating or producing unit(s) which they administer or to which they are auxiliary. A unit is considered as auxiliary to a firm's operations if it is engaged solely in rendering services for intra-firm use, and if the functions are of a type which are usually performed by operating firms

[1] Standard Industrial Classification Manual, vol. I, pt. 1, Foreword, p. IV; Executive Office of the President, Bureau of the Budget, November 1945.

[2] Standard Industrial Classification Manual, vol. I, pt. 1, p. 1; Executive Office of the President, Bureau of the Budget, November 1945.

5.1–3 What Is an Establishment?—Con.

for themselves. Examples of auxiliary units are buying offices, shipping points, warehouses, repair shops, garages, and laboratories operated by firms solely for their own use."[3] Establishments which are primarily sales offices are never considered as auxiliary units.

Section 5.2, contains some discussion on problems encountered in applying the definitions given in the foregoing paragraphs.

5.1–4 Basis for Classifying an Establishment

See section 2, volume II, for State Program practice on the points discussed here in general terms.

(a) PRIMARY PRODUCT. It has been noted that generally under BLS policy an establishment is classified on the basis of its product or activity. When an establishment makes more than one product or engages in more than one activity, it is classified on the basis of its primary or principal product or activity.

Primary or principal product or activity could conceivably be determined in several ways which may or may not lead to the same result. Thus, one could base primary product on the one engaging the largest number of workers; or, on the product having the largest pay roll; or, on the product bringing the largest gross or net income; or, finally, on the product to which most value is added by manufacture. In actual practice the choice of criteria is limited since many employers do not keep records, by product, of pay rolls, employees, or of value added by manufacture. Virtually, all employers have records of total sales by product, while some may have records on net income.

Product refers to the commodities shipped by the establishment, not to intermediate commodities. When gross income is used to determine primary product, there will usually be no problem of specification of products. On the other hand, if employment or pay rolls is used, there may be. For example, an establishment making barrels from cooperage stock produced on the premises may have most of its employees or pay roll on producing the stock. If primary product were determined from employment or pay rolls, the establishment would be classified in 2424, cooperage stock mills. However, since the end product is barrels, the correct classification is 2445, cooperage. If the establishment both used its stock to make barrels and also shipped stock to other cooperage plants, proper classification would then depend on which shipped product, the stock or the barrels, met the criteria being used.

(b) EXCEPTIONS TO PRIMARY PRODUCT CRITERION. There are some exceptions, under the SIC structure, to the principle that classification is determined by primary activity. These are:

(1) Dairy products firms are to be classified in trade if they engage in the distribution of fluid milk or cream, irrespective of major activity.

(2) Machine shops primarily engaged in repair work are classified as machine shops in manufacturing if they also make parts on a jobbing basis; however, shops engaged exclusively in repair work are to be classified in repair industries under service.

(c) CASES IN WHICH PROCESS GOVERNS CLASSIFICATION. Throughout the SIC structure there are many instances in which process governs classification. These are usually cases in which establishments processing raw materials into semifinished and finished products constitute a basic and economically important group, irrespective of the exact product shipped. The difference between them and other establishments shipping the same product may often be described in terms of whether the product is made from materials produced in the same plant or from purchased materials.

For example, in the meat products industry, establishments performing slaughtering operations for their own account are included in wholesale meat packing (2011), although the end-products shipped may, in many instances, be the same as those of establishments making sausages and other meat products prepared from purchased meat (2013). Other examples in the food group are (1) establishments which manufacture natural cheese and which may

[3] SSB Industrial Classification Code, 1942, vol. I, Foreword.

5.1–4 Basis for Classifying an Establishment—Continued

also produce processed cheese are classified in natural cheese (2022), while establishments making processed cheese from purchased natural cheese belong in special dairy products (2025); and (2) establishments which mill flour or meal from grain and also produce blended and prepared flours principally from ingredients ground in the establishment are included in flour and other grain-mill products (2041), while establishments producing blended and prepared flours from purchased ingredients are included in blended and prepared flour (2045). Some examples from other groups are (1) knitting mills making finished garments are classified in the textiles group, while plants making the same garments from purchased knit cloth are included in apparel group, (2) paper mills which also make converted paper products are included in paper and paperboard mills (2612), while establishments making the same products from purchased materials are covered in other industries in the same major group, and (3) steel works and rolling mills may produce end-products which are classified elsewhere when they are made from purchased steel.

It should, of course, be noted that in these cases the establishment engaged in the basic operation most often produces for sale certain typical semifinished products, either exclusively or as a major product. This permits the characterization of these establishments by product, as in other cases; but the primary consideration is process.

In certain industries the end-product may actually be misleading. Thus, an independent or jobbing iron and steel forge may in a given year be primarily engaged in making airplane propellers, suggesting classification in 3723, aircraft propellers and propeller parts. This would be incorrect. The characteristic feature of a jobbing forge is its operation, not its end-product, which will vary considerably from year to year. The correct classification would therefore be 3391, iron and steel forgings. The same argument holds for jobbing foundries and jobbing machine shops.

(d) THE TIME ELEMENT. Classification of an establishment on the basis of its primary product during any week may differ from the classification based on primary product over a month. The latter in turn may differ from classification based on annual activity.

These differences are particularly important when an establishment's activities are changing or when they are shifting back and forth seasonally. It has generally been agreed that classification should be based on annual activity. Most firms keep their books on an annual basis. Also, the effect of seasonal variation in activity is eliminated.

5.1–5 Product or Activity Classification Only Approximate

Under the system of classifying establishments by primary activity or product, one cannot obtain an activity or product classification system without overlap. Employment shown, for example, under miscellaneous machinery parts does not reflect total man-hours utilized in making miscellaneous machinery parts. Many other industries make such parts as secondary products. Similarly, employment shown under iron and steel foundries does not reflect total employment in these types of foundries. Many fabricating establishments have their own foundries, employment for which is included under the industry determined by the fabricated product.

Similarly in the nonmanufacturing industries, establishments classified as wholesalers may do considerable retailing, electrical appliance and radio retail stores may do a substantial repair business (classifiable in services when repair is the major activity), hardware stores may sell a considerable amount of electrical supplies, drug stores sell food, electrical goods, books, records, etc.

5.1–6 Reports From Individuals

Employment can also be measured through reports from individuals as in the regular decennial population censuses or in the Monthly Report on the Labor Force, the latter being based on a sample of households (see section 4.4–1, vol. I). While there are many differences

5.1–6 Reports From Individuals—Continued

inherent in the two methods, establishment reports and individual or household reports, and specific differences between BLS series and the MRLF series, only a few points pertaining to industry classification will be mentioned in this section.[4] The classification of reports from individuals cannot be as fine as that of reports from establishments. The member of the household who replies to the questions in the interview often does not have a sufficiently detailed knowledge of the establishments in which the members of the household are employed to permit their proper classification. Usually the occupational information on individual reports is fairly good, but very many occupations cut across industry lines. Moreover, it would be extremely difficult, if not impossible, to develop reliable series on pay rolls and average earnings from reports from individuals for even the broad industry groups feasible from individual reports.

5.2 DETERMINING THE ESTABLISHMENT

5.2–1 Establishment Definitions General

The establishment definitions in section 5.1–3 are general and do not contain the answers to every problem that will arise. For example, in some industries the concept "establishment" as a fixed location cannot be applied; e. g., traveling units such as dance bands operating on a contract or fee basis, and carnivals. In others the concept of an establishment's operations being contained within some relatively limited area has little meaning; e. g., railroads and other transportation and utility industries.

5.2–2 Geographic Classification

The geographic classification of employees (for State or area statistics) in the above industries is particularly difficult. The BLS has no fixed policy on this subject. In the case of the traveling units, some fixed location such as the booking agent's office, which is regarded by the unit as its "home base" may be used. In the case of transportation and utility industries, a concept that has proved helpful is to assign employees to their regular pay stations (pay delivery points). Employees may also be assigned to the station from which they regularly receive their work assignments or where their primary pay roll records are kept. Still another approach is to assign employees to the State where they spend the major portion of their working time. Or, an employee may be assigned to the State of his "home office" if he performs any work in that State, otherwise to his State of residence. There are, of course, other alternatives. Some of the specified ways of meeting this problem and other alternatives will very often lead to the same geographic classification. Usually, the choice of alternatives is limited by the ways in which the respondent can report. In general, the "pay station" concept probably will be found to be the one of widest applicability.

In determining the basis for the assignment of employees by State, consideration should be given to the way such employees are reported to UC agencies, since this method will probably be the easiest for the employer and will make the sample consistent with benchmarks.

5.2–3 Establishments Difficult to Locate

There will also be cases in which the establishment is difficult to locate. For example, small truck operators may have no fixed place of business; business is solicited personally and accounts are kept at home. In other cases such as custom tailors, watch repair, and other personal service industries the establishment may be located in the owner's home. Fortunately, these cases account for little employment other than the owner-proprietors who are not covered in BLS reports.

[4] For a more complete discussion see "An Industrial Classification for Reports from Individuals" by Bruno Fels and P. K. Whelpton, J. A. S. A., March 1940, vol. 53, pp. 74–85.

5.2–4 Auxiliary Unit Versus Establishment Concepts

Cases which involve decisions of whether or not a unit of a company should be regarded as a separate establishment will often prove more vexing than the cases noted thus far. The reference in the definition to "two or more units which maintain separate payroll and inventory records and which are engaged in distinct or separate activities, etc." must be used in conjunction with the concept of auxiliary units. Thus, a manufacturer may operate trucks in the transport of his own products, for which he keeps separate pay-roll and inventory records. Should a separate nonmanufacturing report be solicited for the trucking, or should it be regarded as an auxiliary activity to be included in manufacturing? There are no hard and fast rules in answering such questions.

The idea of an auxiliary unit, apart from any specific definition it may be given, is that of a unit performing a service in connection with the main activity of the owner, irrespective of whether or not the unit is separately incorporated. Auxiliary units may therefore be expected to have employment fluctuations similar to those of the main activity rather than to those of similar independent units. This is an argument for including auxiliary units with the main activity.

However, many auxiliary units have different occupational and wage patterns from the main activity. Hence, if the auxiliary unit is very large, it may "dilute" the hours and earnings figures for the industry. This is an argument for a different classification of the auxiliary unit. Yet, if most of the establishments in the industry have similar auxiliary units, this "dilution" argument is weakened. This is the significance of "if the functions are of a type usually performed by operating firms for themselves" in the above definition of an auxiliary unit for classification purposes.

On the other hand even if most of the industry has such auxiliary units, should these units in toto be relatively large compared to the industry comprising similar independent units, we may lose considerable in industry detail.

The concept "auxiliary unit" as it will be used in the State Program may be expected to change as more experience is obtained and as interagency differences are ironed out (see sec. 2.3, vol. II). In general, the term will be used to refer to units, irrespective of site and whether or not separately incorporated, engaged solely in rendering services for intrafirm use of a type usually performed by operating firms for themselves.

To return to the example of a manufacturer operating a few trucks, the trucking activity would be classified in manufacturing despite the availability of separate reports, since most manufacturers operate trucks to some extent.

5.2–5 Summary

In summary, the application of the definition of an establishment may be troublesome in some cases. Difficulty is particularly to be expected in deciding whether some unit of a firm is a separate establishment or an auxiliary unit. Decisions in many cases will be empirical and will be influenced not only by the facts in the case but also by the availability of separate data and by the need for interagency uniformity.

SECTION 6

Theory of Wedging

This section reserved for discussion of the above topic.

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See back of Volume II for Index to
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